Effects of social media, electronic word-of-mouth, and price on U.S. female consumers’ attitude toward purchase and purchase intention of ethical apparel

Melissa Abner
Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/etd
Part of the American Material Culture Commons, and the Fashion Design Commons

Recommended Citation
Abner, Melissa, "Effects of social media, electronic word-of-mouth, and price on U.S. female consumers’ attitude toward purchase and purchase intention of ethical apparel" (2019). Graduate Theses and Dissertations. 16950.
https://lib.dr.iastate.edu/etd/16950

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Effects of social media, electronic word-of-mouth, and price on U.S. female consumers’
attitude toward purchase and purchase intention of ethical apparel

by

Melissa Abner

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Apparel Merchandising and Design

Program of Study Committee:
Elena Karpova, Co-major Professor
Fatma Baytar, Co-major Professor
Sara Marchetti
Su Jung Kim
Daniel Russell

The student author, whose presentation of the scholarship herein was approved by the
program of study committee, is solely responsible for the content of this dissertation. The
Graduate College will ensure this dissertation is globally accessible and will not permit
alterations after a degree is conferred.

Iowa State University

Ames, Iowa

2019

Copyright © Melissa Abner, 2019. All rights reserved.
DEDICATION

This dissertation is dedicated to Jason and Marlie for being my support system and believing in me through the process of completing my dissertation and Ph.D. I love you both.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>x</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xi</td>
</tr>
<tr>
<td>CHAPTER 1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>Consumers Desire Ethical Apparel</td>
<td>1</td>
</tr>
<tr>
<td>Communication of Information</td>
<td>2</td>
</tr>
<tr>
<td>Social Media</td>
<td>3</td>
</tr>
<tr>
<td>Word-of-Mouth</td>
<td>3</td>
</tr>
<tr>
<td>Price of Ethical Apparel</td>
<td>4</td>
</tr>
<tr>
<td>Ethical Apparel Characteristics</td>
<td>5</td>
</tr>
<tr>
<td>Research Purpose and Objectives</td>
<td>7</td>
</tr>
<tr>
<td>Significance of Research</td>
<td>8</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>9</td>
</tr>
<tr>
<td>CHAPTER 2. LITERATURE REVIEW</td>
<td>12</td>
</tr>
<tr>
<td>Shift towards Ethical Apparel Products</td>
<td>12</td>
</tr>
<tr>
<td>Definitions of Sustainability and Social Responsibility</td>
<td>13</td>
</tr>
<tr>
<td>Definition of Ethical Apparel</td>
<td>14</td>
</tr>
<tr>
<td>Characteristics of Ethical Apparel</td>
<td>14</td>
</tr>
<tr>
<td>Environmental Responsibility</td>
<td>18</td>
</tr>
<tr>
<td>Human Welfare</td>
<td>20</td>
</tr>
<tr>
<td>Fair trade</td>
<td>21</td>
</tr>
<tr>
<td>Fair labor</td>
<td>22</td>
</tr>
<tr>
<td>Animal Welfare</td>
<td>22</td>
</tr>
<tr>
<td>Philanthropy</td>
<td>23</td>
</tr>
<tr>
<td>Consumer Decision Making</td>
<td>24</td>
</tr>
<tr>
<td>Theory of Reasoned Action</td>
<td>24</td>
</tr>
<tr>
<td>Attitude towards purchase and purchase intention</td>
<td>25</td>
</tr>
<tr>
<td>Subjective norm</td>
<td>25</td>
</tr>
<tr>
<td>Electronic word-of-mouth</td>
<td>27</td>
</tr>
<tr>
<td>Online consumer comments</td>
<td>28</td>
</tr>
<tr>
<td>Social Media</td>
<td>29</td>
</tr>
<tr>
<td>Social Media Use</td>
<td>31</td>
</tr>
<tr>
<td>Blogs</td>
<td>32</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Video</td>
<td>32</td>
</tr>
<tr>
<td>Differences between Blog and Video</td>
<td>33</td>
</tr>
<tr>
<td>Price</td>
<td>35</td>
</tr>
<tr>
<td>Generational Cohorts</td>
<td>37</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>38</td>
</tr>
<tr>
<td>Generation X</td>
<td>39</td>
</tr>
<tr>
<td>Millennials</td>
<td>40</td>
</tr>
<tr>
<td>Generation Z</td>
<td>41</td>
</tr>
<tr>
<td>Generation Group Differences</td>
<td>42</td>
</tr>
<tr>
<td>CHAPTER 3. METHOD</td>
<td>46</td>
</tr>
<tr>
<td>Research Design and Experimental Procedure</td>
<td>46</td>
</tr>
<tr>
<td>Stimuli</td>
<td>48</td>
</tr>
<tr>
<td>Apparel Item</td>
<td>48</td>
</tr>
<tr>
<td>Description of Ethical Apparel Characteristics</td>
<td>49</td>
</tr>
<tr>
<td>Development of Blog and Video</td>
<td>49</td>
</tr>
<tr>
<td>eWOM Comments</td>
<td>50</td>
</tr>
<tr>
<td>Price Options</td>
<td>52</td>
</tr>
<tr>
<td>Sample</td>
<td>53</td>
</tr>
<tr>
<td>Instrument</td>
<td>54</td>
</tr>
<tr>
<td>Media Manipulation Check</td>
<td>56</td>
</tr>
<tr>
<td>Importance of Ethical Characteristics</td>
<td>57</td>
</tr>
<tr>
<td>Attitude towards Purchase</td>
<td>57</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>57</td>
</tr>
<tr>
<td>eWOM</td>
<td>57</td>
</tr>
<tr>
<td>Demographics</td>
<td>58</td>
</tr>
<tr>
<td>Questionnaire Pilot Test</td>
<td>58</td>
</tr>
<tr>
<td>Data Collection</td>
<td>59</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>60</td>
</tr>
<tr>
<td>CHAPTER 4. RESULTS</td>
<td>63</td>
</tr>
<tr>
<td>Research Sample</td>
<td>63</td>
</tr>
<tr>
<td>Description of Participants</td>
<td>64</td>
</tr>
<tr>
<td>Participant Characteristics by Experimental Condition</td>
<td>68</td>
</tr>
<tr>
<td>Factor and Reliability Analysis</td>
<td>69</td>
</tr>
<tr>
<td>Attitude towards Purchase</td>
<td>69</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>70</td>
</tr>
<tr>
<td>Manipulation Check</td>
<td>71</td>
</tr>
<tr>
<td>Media Animation</td>
<td>71</td>
</tr>
<tr>
<td>Media Interactivity</td>
<td>71</td>
</tr>
<tr>
<td>Sidedness of eWOM</td>
<td>72</td>
</tr>
<tr>
<td>Hypotheses Testing</td>
<td>72</td>
</tr>
<tr>
<td>Relationship between Attitude towards Purchase and Purchase Intention</td>
<td>73</td>
</tr>
<tr>
<td>Effects of eWOM Type on Attitude and Purchase Intention</td>
<td>73</td>
</tr>
</tbody>
</table>
CHAPTER 5. CONCLUSIONS AND DISCUSSION

Research Summary .......................................................... 105
Summary of the Results .......................................................... 107
  Classification of Ethical Apparel Characteristics .................. 107
  Relationship between Attitude towards Purchase and Purchase Intention .... 107
  Effect of eWOM on Attitude .................................................. 108
  Effect of eWOM on Purchase Intention .................................. 108
  Participant Feedback about eWOM ........................................ 109
  Effect of Time Reading eWOM on Attitude and Purchase Intention ...... 110
  Effect of Media Type on Attitude and Purchase Intention ............ 111
  Effect of Price on Attitude and Purchase Intention ................... 112
  Importance of Ethical Apparel Characteristics ......................... 113
    Safe working conditions and fair trade ................................ 113
    Cruelty free ....................................................................... 114
    Reduced environmental impact ......................................... 115
    Environmental production characteristics ............................. 115

Effect of eWOM type on attitude toward purchase ......................... 73
Effect of eWOM type on purchase intention .................................. 74
Effect of time reading eWOM on attitude and purchase intention ....... 75
Effect of Media Type on Attitude and Purchase Intention ............... 77
Effect of Price on Attitude and Purchase Intention .......................... 78
Generation Groups and Ethical Product Characteristics .................. 80
  Importance of ethical product characteristics .......................... 81
  Differences in generation groups ......................................... 83
Summary of Hypothesis Tests .................................................... 88
Analysis of Open-Ended Responses .............................................. 89
Helpfulness of eWOM ............................................................... 89
  Positive eWOM participant feedback .................................... 90
    Characteristics of positive eWOM ..................................... 91
    General t-shirt characteristics ....................................... 91
    Ethical t-shirt characteristics ........................................ 92
  Neutral eWOM participant feedback ..................................... 93
    Characteristics of neutral eWOM ...................................... 94
    General t-shirt characteristics ....................................... 94
    Ethical t-shirt characteristics ........................................ 94
  Negative eWOM participant feedback .................................... 95
    Characteristics of negative eWOM .................................... 96
    General t-shirt characteristics ....................................... 97
    Ethical t-shirt characteristics ........................................ 97
Comparison of eWOM Helpfulness .............................................. 98
Additional Product Characteristics ............................................. 100
  Affordability ....................................................................... 101
  General product characteristics ......................................... 102
  Ethical product characteristics ......................................... 103
vii

LIST OF FIGURES

Figure 2.1 Model of proposed relationships of variables ........................................ 37
Figure 4.1 Sample income compared to the U.S. household’s average income ....... 67
Figure 4.2 Effects of eWOM, media type, and price on attitude and purchase
Intention ................................................................. 79
Figure 4.3 Rating of ethical characteristics by the four generation groups .......... 87
Figure 4.4 Content cloud of participant feedback about positive eWOM ............ 90
Figure 4.5 Content cloud of participant feedback about neutral eWOM ............ 93
Figure 4.6 Content cloud of participant feedback about negative eWOM .......... 96
Figure 4.7 Content cloud of participant feedback about additional
ethical apparel characteristics not included in the study .................................... 101
LIST OF TABLES

Table 2.1 Classification of ethical apparel characteristics........................................ 17
Table 2.2 Summary of generational cohort research and proposed important ethical characteristics ....................................................................................................................... 43
Table 2.3 Summary of hypotheses............................................................................. 45
Table 3.1 Constructed eWOM consumer comments ................................................. 51
Table 3.2 Survey items .............................................................................................. 55
Table 4.1 Demographic characteristic of the sample in comparison with the U.S. population ........................................................................................................................................ 65
Table 4.2 Generational cohort by experimental condition......................................... 69
Table 4.3 Factor analysis and reliability for the attitude towards purchase scale...... 70
Table 4.4 Factor analysis and reliability for the purchase intention scale ................. 70
Table 4.5 Summary of t-test analysis for media interactivity and animation ......... 71
Table 4.6 Regression analysis results for purchase intention .................................... 73
Table 4.7 Effect of eWOM type on attitude and purchase intention ......................... 74
Table 4.8 Effect of taking time to read eWOM comments carefully on attitude and purchase intention ........................................................................................................ 76
Table 4.9 Effect of media type on attitude and purchase intention ......................... 77
Table 4.10 Effect of price on attitude and purchase intention ................................. 78
Table 4.11 Differences in the importance of ethical product characteristics............ 82
Table 4.12 Descriptive statistics for product characteristic importance by generation group .................................................................................................................................. 84
Table 4.13 Summary of hypotheses results ............................................................... 88

Table 4.14 Summary of participant feedback about eWOM in relation to information provided in eWOM. ............................................................... 99
ACKNOWLEDGEMENTS

- I would like to thank my major professors Dr. Fatma Baytar and Dr. Elena Karpova for their expertise and guidance. Thank you for pushing me and supporting me through this journey. I appreciate all of your time and effort. You took the care to make sure each detail was correct, while also seeing the bigger picture. I am a better professional because of your mentorship.

- I would also like to thank the rest of my committee members, Dr. Dan Russell, Dr. Sara Marcketti, Dr. Su-Jung Kim, and Dr. David Kriener, for their support and guidance.

- Thank you to everyone at Iowa State for being welcoming and helpful during each step of the way. The faculty, staff, and students in the AESHM department and AMD program were supportive and made this an enjoyable experience. I am proud to be part of the ISU #AESHM family.

- Thank you to my colleagues at UCM for helping with workload and being supportive. Your interest in my studies and belief in me is amazing.

- To my students: Thank you for your patience and supportive on days I was losing my mind. Thank you for being lenient with having grading completed, and your overall kindness and understanding. I truly did this so I could be a better teacher for you and contribute to our field for you and future generations.

- Although I do not know my research participants, I appreciate their time and feedback. My friends and family who participated in the pilot study and entered eWOM on 12 media conditions are greatly appreciated.

- I could not have done this without the endless support of my family. Jason and Marlie, thank you for being the best cheerleaders and always believing in me, even when I did not. I appreciate your love and sacrifices over the last 5 years.

- Mom, Dad, Linda, and Dave thank you for helping hold our lives together. You babysat, fed us, bought shoes for Marlie when I forgot them, and endless other things. This would not have been possible without all of your help and support.

- This was a huge endeavor, one that I did not think I would accomplish at times. Without everyone’s support, I might not have made it. Thank you all for your part in making it possible. Yay, we did it!
The purpose of this study was to examine the effects of: (a) social media, (b) electronic word-of-mouth (eWOM), and (c) price on attitude towards purchase and purchase intention of ethical apparel products using the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980). Additionally, the study investigated the importance of different ethical characteristics to U.S. female consumers in different generation groups. Using a 2 (media: video and blog) x 3 (eWOM: positive, neutral, and negative) x 2 (price: high and low) experimental design, information was disseminated to participants about a t-shirt with nine ethical characteristics: organic cotton, recycled polyester, reduced energy, reduced water, reduced pollution, fair trade, safe working conditions, cruelty free, and donation to charity. Participants were randomly assigned to view one of the 12 stimuli conditions, preceding a survey that measured attitude and purchase intention. Participants also rated the importance of each of the nine ethical characteristics and provided open-ended feedback about the eWOM and additional ethical apparel characteristics not included in the study.

A sample of 891 female U.S. residents between 18 and 72 years old was obtained using Amazon Mechanical Turk. Data analysis was conducted in three phases, including: (a) preliminary analysis, (b) hypotheses testing, and (c) content analysis of open-ended responses. Preliminary analysis included descriptive statistics, factor analysis, and reliability analysis. Hypotheses were tested with regression, series of one-way ANOVA, and a 4 x 9 mixed ANOVA. Open-ended feedback from participants was content analyzed.

Regression analysis confirmed a positive relationship between attitude towards purchase and purchase intention of ethical apparel. ANOVA revealed that positive eWOM resulted in higher attitude and purchase intention. Media type (video vs. blog) and price (high vs. low) did
not influence attitude or purchase intention. However, participants exposed to the low-price option ($20.00) were more willing to pay the full price for the t-shirt than those exposed to the high-price option ($40.00). Participants rated safe working conditions, cruelty free, reduced pollution and fair trade as most important ethical characteristics. Recycled polyester, organic cotton, and donation to charity were the lowest rated ethical characteristics. Baby Boomers were different from Generation X and Millennials in the importance they attached to the ethical characteristics, but not Generation Z.

Open-ended feedback revealed positive eWOM that provided additional details about products was perceived as helpful. Affordable price, durability, comfort, and style were among most frequently mentioned general characteristics important to participants. Results of the study provide new knowledge about the usefulness of social media to inform consumers about ethical apparel products and the influence of positive eWOM as well as what ethical apparel characteristics are viewed as important.
CHAPTER 1: INTRODUCTION

Background

The fashion industry is increasingly under criticism for contribution to global environmental and social issues throughout the product lifecycle (Kozlowski, Bardecki, & Searcy, 2012). Socially conscious fashion designer Eileen Fisher stated, “The clothing industry is the second largest polluter in the world… second only to oil” (Sweeny, 2015, para. 1). While this statement is hard to prove as fact, it is true that textile and apparel products have contributed to environmental degradation since the Industrial Revolution (Armstrong & LeHew, 2011). Apparel products affect the environment throughout the product lifecycle - from the processing of raw material, to production and distribution, during use by consumers, and, finally, disposal (Kunz, Karpova, & Garner, 2016).

Further, disasters like the 2013 Rana Plaza building collapse in Bangladesh have increased global attention to unsafe working conditions in developing countries (Yardley, 2013) and led consumers to seek out brands with responsible production practices (Kang & Hustvedt, 2014). There is also a growing number of consumers who are sensitive to animal rights issues and have adopted vegan lifestyles that are against use of animal products (Baizley, 2018). These growing concerns for environmental, human and animal rights issues lead to a higher demand for ethical apparel products.

Consumers Desire Ethical Apparel

Consumer demand for ethically sourced and environmentally sound products is at an all-time high and expected to continue to grow (Baizley, 2018). More consumers actively seek out, and purchase, socially and environmentally responsible brands. This is led by Millennial consumers, but is gaining popularity with consumers of all age groups (Baizley, 2018). As
consumers search for responsible products, they want more transparency in the supply chain so they know where all of the materials come from and under what conditions they are produced (Bell, 2017).

Even with the gradual industry and consumer shift towards more ethical production and consumption, the concept of ethical apparel is largely misunderstood. Buzz words used to describe apparel products, such as “sustainable”, “green”, and “socially responsible”, are used interchangeably among companies and academics alike (Reimers Magnuson, & Chao, 2016), which confuses consumers. “Fair trade” is another ethical product characteristic that is often misunderstood, but was found as the most important attribute of ethical apparel (Hwang, Lee & Diddi, 2015). There is a need for a systematic and comprehensive classification of ethical apparel characteristics. This will help academic researchers, companies, and consumers communicate about ethical apparel more effectively and consistently.

**Communication of Information**

The communication of ethical information is important because consumers want to know more about how their clothes are made, but grow frustrated when brands do not share information or make it easy to find (Bishop, 2018). In order for consumers to trust that they are buying something ethical and that the company is telling the truth, it is important for businesses to convey information in an efficient and effective way (Bishop, 2018; Shen, Wang, Lo & Shum, 2012). When a company provides clear and transparent details about their responsible business practices, trust is built and customers have more positive attitudes toward the brand (Bhaduri & Ha-Brookshire, 2015; Kang & Hustvedt, 2014; Shen et al., 2012). Previous research has tested non-digital media to inform consumers about characteristics of ethical apparel. Dickson (2001) compared different clothing labels, while Hwang et al. (2015) examined the effect of hangtags
with environmental messages. However, consumers often use the Internet to look up information and do a lot of their shopping online (Lister, 2017; Schlossberg, 2016), where hangtags or labels would be ineffective in conveying product information. There is a need for clear communication about ethical apparel where it is easy for consumers to find, such as online.

**Social Media**

The Internet is used by more than one-third of U.S. consumers to look for ethical products (Minton, Lee, Orth, Kim, & Kahle, 2012), and social media is one of the most efficient ways to convey information to consumers (de Lenne & Vandenbosch, 2017), promote products, and build brand loyalty (Chu & Kim, 2018). However, the use of social media to communicate information about ethical apparel has not been studied thoroughly. The use of social media in advertising has been studied extensively (e.g., Kaplan & Haenlein, 2010; Knoll, 2015) and in different apparel contexts, such as luxury brands (e.g., Kim & Ko, 2012). Minton et al. (2012) studied the use of Facebook and Twitter social media to influence general sustainable behaviors (e.g., recycling, buying organic, donation to charity, etc.). To date, only one known study conducted by de Lenne and Vandenbosch (2017) has researched social media to inform consumers about ethical apparel. The authors found that young consumers were rarely exposed to social media about ethical apparel, but concluded that it has a great potential to build awareness. Therefore, it is important to examine the effectiveness of different social media in communicating information about ethical apparel.

**Word-of-Mouth**

Increasingly, consumers seek out other customers’ feedback on products given as comments or online reviews because they trust this informal information more than descriptions provided by companies (Cheung Lou, Sia & Chen, 2009; Salazar, Oerlemena, & Stroe-Bienzen,
Consumers often turn to word-of-mouth to help them make purchasing decisions (Bishop, 2018). Social media allows consumers to be active participants in creating product narrative through comments and sharing (Bilandzic, Patriarche, & Traudt, 2012; Sundar & Kim, 2005). On social media, consumers communicate with each other through electronic word-of-mouth (eWOM). eWOM is positive or negative information about a company or product that can influence another consumer’s attitude towards purchasing the product (Chu & Kim, 2018; See-To & Ho, 2014).

Academics have used the theory of reasoned action (TRA) to support the impact of subjective norm and attitude towards purchase with the intent to purchase ethical apparel (e.g., Bhaduri & Ha-Brookshire, 2011; Cowan & Kinley, 2014; Zeng & Chi, 2015). Using eWOM, consumers can advocate for a brand online, and these comments can act as social influence, or subjective norm (Seifert & Kwon, 2015). Only one study to date has specifically researched eWOM through social media in the ethical apparel context. De Lenne and Vandenbosch (2017) addressed the use of blog social media and eWOM to impact consumer attitude towards ethical products. However, this study only used one media type and had a limited sample of young adults in the Netherlands. It is important to further study the impact and usefulness of different types of social media and embedded eWOM on consumer attitude and behavioral intention. Social media and eWOM will be increasingly more important in communicating and sharing any type of information across different populations.

Price of Ethical Apparel

Often, ethical products have higher retail prices than traditionally produced products. Higher prices of ethical products can deter consumers from purchasing them (Bray Johns, & Kilburn, 2011; Grimmer & Bingham, 2013; Kozar & Hiller Connell, 2013). However, both...
scholarly research (Bhaduri & Ha-Brookshire, 2011; Castaldo, Perrini, Misani, & Tencati, 2009) and market research (Bishop, 2018; Neilson, 2015) have concluded that consumers are willing to pay more for ethically produced products, especially, when companies provide credible and detailed information to explain why and how the product is considered ethical.

Consumers showed higher purchase intention for cell phones from responsible companies; however, there was a significant negative influence on purchase intention when the price was high versus low (Grimmer & Bingham, 2013). Freestone and McGoldrick (2008) suggested a “critical point” where higher prices outweigh ethical benefits of products, and consumers opt for lower priced, possibly less ethical, options. Research supports that consumers are willing to pay more for ethical products as long as the price is not too high. Existing research has not tested how different price points (e.g., high versus low) might affect purchase of ethical apparel products. Therefore, research comparing specific price points of ethical apparel will give insight into how price affects consumer intention to purchase ethical apparel products.

**Ethical Apparel Characteristics**

Although consumers are conscious about ethical practices of companies, it is unclear which ethical apparel characteristics are most important to consumers. Different classifications of ethical products include conflicting characteristics and academic research has studied multiple ethical apparel characteristics with conflicting findings. Many studies have found that human-related characteristics are more important to consumers than environmental characteristics (Bhaduri & Ha-Brookshire, 2015; Hwang et al., 2015; Reimers et al., 2016; Shen et al., 2012). However, Reimers et al. (2016) found that animal welfare was the most important characteristic for Australian consumers.
Few studies have compared multiple ethical apparel characteristics at one time (Hill & Lee, 2012). Some studies focused on understanding a single ethical characteristic, such as organic cotton (e.g., Han & Chung, 2014; Hustvedt & Dickson, 2009) or fair trade (e.g., Ma, Litrell & Niehm, 2012). Other existing research measured a limited number of characteristics, such as recycled content, organic content, and fair trade (e.g., Hwang et al., 2015), which could leave out characteristics that are important to consumers. Only Reimers et al. (2016) have compared cruelty free with human rights and environmental characteristics, but it was with an Australian consumer sample.

In addition, few existing studies have compared multiple age groups, as many existing ethical apparel studies use convenience samples of college students (e.g., Bucic, Harris, & Arli, 2012; Hwang, et al., 2015; Zheng & Chi, 2015), sometimes mostly textile-and apparel-related majors (Hill & Lee 2012). While some researchers have attempted to gain a broader demographic sample (Hustvedt & Dickson, 2009), they ended up with many consumers from one age group (i.e., older adults). Other studies that sampled a range of ages did not analyze the data in a way to examine characteristics that are perceived as important to different age groups (Han & Chung, 2014; Shen et al., 2012). It is necessary to have a broader sample to represent the entire population of U.S. consumers, because consumers of different ages are expected to exhibit different ethical purchasing behavior (Jayawardhena, Morrell, & Stride, 2016). Millennials (i.e., 24-38 years old) have been studied in depth, but research about consumers of other ages is lacking. Further, scholarly and market research have conflicting findings on ethical product characteristics that are important to consumers of different ages. Understanding consumer preferences for ethical apparel is essential for transforming the industry to a more sustainable model.
Research Purpose and Objectives

The overarching purpose of the study was to examine the effectiveness of social media in communicating information about ethical apparel products and evaluate the impact of eWOM on consumer attitudes towards these products. The influence of price on attitude towards purchase and purchase intention was also evaluated. Additionally, this study investigated the importance of ethical product characteristics for different consumer age groups. Specific research objectives included:

1. Compare effectiveness of different social media in influencing consumer attitude towards purchase and purchase intention towards ethical apparel.
2. Examine how subjective norm in the form of eWOM influences attitude towards purchase and purchase intention of ethical apparel.
3. Analyze the influence of price on attitude towards purchase and purchase intention of ethical apparel.
4. Investigate the importance of different ethical apparel characteristics to consumers:
   a. based on extant research and theoretical considerations, develop a systematic and comprehensive classification of ethical apparel characteristics;
   b. based on the developed classification of ethical apparel characteristics, identify what ethical apparel characteristics are perceived as most important to consumers;
   c. identify how consumer age influences what ethical apparel characteristics are perceived as important.
Significance of Research

This study contributed to the growing body of literature about consumer perception and attitude towards ethical apparel products. Specifically, this research provided insight for apparel brands about how to communicate ethical product attributes to consumers in an easy to understand and accessible format using social media, which has had limited research. The present study also evaluated the importance of subjective norm delivered in the form of eWOM and the impact it had on consumer attitude and purchase intention of ethical apparel. The exploration of price points for ethical apparel provided new insight into pricing ethical apparel products. Overall, these three outcomes provided an important theoretical contribution and can be useful in guiding future research. From a practical perspective, companies might benefit from understanding how social media, eWOM, and price influence consumer behavior, so they can use them in an efficient and appropriate way.

This research developed a comprehensive classification of ethical apparel characteristics that has important theoretical implications. Recent classifications have ignored important aspects, such as animal welfare (Henninger, Alevizou, & Oates, 2016) or philanthropy (Henninger et al., 2016; Reimers et al., 2016) that have been found important to consumers (Peloza and Shang, 2010; Reimers et al., 2016). Further, this classification could help guide research efforts that use terminology more consistently. Researchers might also use the classification to compare consumer reactions to different ethical characteristics that have not been studied in depth.

From a practical perspective, understanding how to classify and define ethical apparel characteristics and communicate them effectively can be useful to multiple stakeholders, including: (a) companies who produce and sell ethical apparel; (b) consumers, who are interested
in understanding how their purchases might benefit the environment and society; and (c) educators who are preparing future industry professionals. Knowing which characteristics of ethical apparel are important to consumers might help companies to target their communication and marketing efforts. Further, having a more systematic classification system can help companies organize information, so it is easy for consumers to find and understand. Consumers might benefit from having easy to digest and transparent information, so they can purchase ethical apparel with confidence. Educators can use the classification as a teaching tool or might be inspired to create projects or assignments that encourage students to practice and analyze effective communication about ethical apparel using social media.

Overall, if information is clearer and more transparent, consumers are more likely to purchase ethical apparel (Bhaduri & Ha-Brookshire, 2011; Kozar & Hiller Connell, 2013). More ethical purchasing behavior will increase demand and encourage companies to continue to seek out production and distribution methods that are more environmentally and socially responsible. This will increase progress towards a more ethically sound fashion system that will benefit the environment and society as a whole.

1.4 Definition of Terms

*Animal welfare*: in the context of fashion industry, relates to ‘cruelty free’ apparel that contain no animal products (i.e., fur, leather, skins, and wool) and are not tested on animals (Reimers et al., 2016).

*Attitude*: a person’s belief towards a specific act (Ajzen & Fishbein, 1980).

*Behavior intention*: a person’s willingness to participate in a certain behavior (Ajzen & Fishbein, 1980).
**Blog**: digital diary or personal webpage that can combine text, photos, and videos and allows for comments and discussion among readers (Bullas, 2012; Kaplan & Haenlein, 2010).

**Corporate social responsibility (CSR)**: a company’s ethical obligation towards stakeholders that includes manufacturing practices, employment practices, and philanthropy with regard for the environment, society, and communities (Bhattacharya & Sen, 2004; Kunz et al., 2016; Peloza & Shang, 2011).

**Donations to charity**: a philanthropic activity where a portion of proceeds are given back to society in the form of cash donations, volunteerism, or community support (Peloza & Shang, 2011).

**Electronic word-of mouth (eWOM)**: a positive or negative comment made about a brand or product on the Internet (See-To & Ho, 2014). This can include comments on social media or online reviews of products (Cheung et al., 2009; Seifert & Kwon, 2015).

**Ethical apparel**: apparel that is produced with consideration of environmental impact, human welfare, animal rights (Reimers et al., 2016), and philanthropy.

**Fair trade**: a socially responsible business practice that is associated with paying fair prices for materials and manufacturing of products (Fair Trade America, 2017). It is associated with fair pay and extra money that is used to better the lives of people who make products (Marcario, 2016).

**Generational cohorts**: market segments of consumers divided based on age (Schewe & Meredith, 2004).

a. **Baby Boomers**: consumers born between 1946 and 1964.


**Human welfare**: includes fair labor practices that ensure the ethical treatment of workers globally (Fair Labor Association, 2012). Fair labor policies address harassment, abuse, discrimination, working conditions, hours of work and age of workers (Patagonia, 2018b).

**Interactivity of media**: the extent to which media is animated (Sundar & Kim, 2005) and allows users to interact with the content (Labrecque, 2014).

**Organic material**: natural fibers grown without the use of synthetic pesticides, fertilizers, herbicides, or defoliants to reduce the overall chemical toxicity of the process (Kadolph & Marcketti, 2017).

**Recycled material**: a new fiber made from something that has been used before (Kadolph & Marcketti, 2017).

**Social media**: Internet-based applications that allow users to generate, remix, and exchange content (Junco, 2014; Kaplan & Haenlein, 2010).

**Subjective norm**: a person’s belief that members of a given reference group expect them to perform the behavior in question (Ajzen & Fishbein, 1980).

**Video social media**: a community where users can share and view media content that also allows for comments and discussion; YouTube is the largest video sharing platform (Kaplan & Haenlein, 2010).
CHAPTER 2: REVIEW OF LITERATURE

The following review of literature first discusses social responsibility in the context of the textile and apparel industry and defines ethical apparel products. Based on existing literature, a systematic classification of ethical apparel characteristics is proposed. Then, justification is provided to further examine several of these characteristics in this study: (a) recycled fiber content, (b) organic materials, (c) fair trade, (d) safe working conditions, (e) cruelty free and (f) donations to charity, (g) reduced water use, (h) reduced energy use, and (i) reduced pollution. Next, the theory of reasoned action explains the relationships between subjective norm, consumer attitude towards purchase, and purchase intention of ethical apparel. Social media and their ability to communicate information about ethical apparel are discussed next. The usefulness of blog and video content for presenting information to consumers is outlined, along with the differences in these social media tools. The influence of price on attitude and purchase intention will be explained. Finally, the generational cohorts of Baby Boomers, Generation X, Millennials, and Generation Z are described and discussed in the context of ethical apparel characteristics they might find most important.

Shift towards Ethical Apparel Products

The textile and apparel industry has been a major contributor to environmental degradation since the Industrial Revolution (Armstrong & LeHew, 2011). Textile and apparel products affect the environment throughout the product lifecycle - from processing of raw material, to production and distribution, use by consumers, and, finally, disposal (Kunz et al, 2016). Karpova’s (2016) matrix for evaluation of textile-based products (Kunz et al., 2016, p. 105) breaks the product lifecycle into four stages: (a) design and product development; (b)
manufacturing and input resources; (c) distribution, transportation and retail, and; (d) consumption and disposal. Throughout this lifecycle, many processes and chemicals negatively affect the air, water, land, people and animals.

Since the early 2000s, the phenomenon known as fast fashion has shortened the apparel product cycle from conception to delivery to as little as two weeks (Hawley, 2015). Fast fashion has increased the industry environmental footprint and has lead consumers to view apparel as disposable. With more clothing being consumed and discarded than ever before, the industry and consumers are becoming aware that more responsible alternatives to traditional production and consumption patterns are needed (Armstrong & LeHew, 2013; Black, 2008).

Definitions of Sustainability and Social Responsibility

Sustainability has become a buzzword, but many consumers are unsure of its meaning in the context of apparel products. Sustainability has multiple definitions, because it is a very complex concept (McFarlane & Ogazon, 2011). Generally, the term sustainability refers to the ability of something to exist forever and never be depleted (Kunz et al., 2016). Environmental, social, and economic dimensions of sustainability are commonly referred to as the triple bottom line (Dickson, Loker & Eckman, 2009). Ha-Brookshire (2015) and Kunz et al. (2016) demonstrated that sustainability occurs where the dimensions of economic, environmental and social performance overlap.

Dickson et al. (2009) suggested that the terms sustainability, social responsibility, and Consumer Social Responsibility (CSR) have similar meanings and are sometimes used interchangeably. Kunz et al. (2016) defined social responsibility to mean that “an entity has obligations to act for the benefit of society at large” (p. 94), by taking into account the communities where they operate, human beings, resources, and the law. The terms sustainability
and social responsibility include environmental (e.g., pollution, water use, energy use) and social (e.g., fair wages, treatment of workers) issues. For companies, the idea of social responsibility has expanded into CSR, which is a company’s ethical obligations that can include manufacturing practices, employment practices, and philanthropy (Bhattacharya & Sen, 2004; Kunz et al., 2016). Peloza and Shang (2011) stated that a trend is for companies to promote CSR policies that include three different aspects of social responsibility (i.e., environment, social, and philanthropy) to create stronger relationships between companies and consumers.

**Definition of Ethical Apparel**

Reimers et al. (2016) argued for the term ethical over socially responsible because the term social is typically associated with human-related issues. In contrast, the term ethical is broader. In addition to environmental, human, and societal issues, it can include animal welfare and is suited for use in the context of consumption (Reimers et al., 2016). Therefore, the present research will use the term ethical apparel to refer to apparel products that are produced with consideration of environmental impact, human welfare, animal rights, (Reimers et al., 2016) and philanthropy.

**Characteristics of Ethical Apparel**

Various classifications and approaches have been proposed to organize and describe characteristics of ethical products. Peloza and Shang (2011) suggested that CSR could be broken down into three main categories:

a) product related environmental practices and policies (e.g., organic products, fewer pollutants, biodegradable); 

b) business practices for obtaining raw materials and producing products (e.g., fair wages, safe working conditions, treatment of workers); and
c) philanthropy (e.g., cash donations, employee volunteerism, charity events).

The authors suggested these three overarching categories because they include a multitude of CSR practices performed by various companies.

Freestone and McGoldrick (2008) reported that, for all products in general, the five ethical issues most important to consumers were:

a) exploitation of people in third world countries,
b) animal testing/ factory farming,
c) damage to the environment,
d) recycling (content and ability to recycle), and
e) genetically modified food.

While the last issue is not directly related to fashion products, the rest are applicable. Freestone and McGoldrick (2008) recommended to focus on more specific ethical issues as opposed to the overarching categories of Peloza and Shang (2011).

More recently, Reimers et al. (2016) suggested that strategies specifically for ethical apparel products fall into four categories:

a) environmental responsibility,
b) employee welfare,
c) slow fashion, and
d) animal welfare.

Similarly, based on literature review and interviews with consumers, Henninger et al. (2016) proposed a matrix with the four categories of ethical apparel:

a) environmental standards,
b) fair trade/ fair wages,
c) limited harmful substances, and
d) human rights/ working conditions.

The above two classifications are both specifically for apparel as opposed to general business practices, (Peloza & Shang, 2011) or all products (Freestone & McGoldrick, 2008). Both Reimers et al. (2016) and Henninger et al. (2016) incorporated environmental and human welfare issues; however, Henninger divided human welfare to differentiate between fair trade and working conditions. Reimers et al. (2016) also included animal welfare and slow fashion, which are additional categories not included by Henninger et al. (2016). Further, the inclusion of animal welfare supports the recommendation of Freestone and McGoldrick (2008) as an important category for any type of ethical products. All four reviewed classifications of ethical products include a combination of environmental and human welfare categories that have been found important to consumers and companies.

Based on the analysis of the existing classifications, the four main categories of ethical apparel were proposed as follows:

a) environmental responsibility,
b) human welfare,
c) animal welfare, and
d) philanthropy.

The four categories were proposed because they are prevalent in extant research as most important to consumers and reflect business practices of many apparel companies. The environmental and human welfare categories are the most critical and have been extensively used in past research and are included in all previous classifications. Animal welfare has been gaining a lot of attention and is important to consider when assessing consumer perception of
ethical apparel. Finally, philanthropy was included because it is one of the most common CSR activities practiced by companies and has been found important to consumers (Peloza and Shang, 2011). The nine specific ethical apparel characteristics investigated in the study were selected based on extant literature, common ethical product attributes, and importance to consumers from previous research. Table 2.1 presents a classification of ethical apparel characteristics within the four proposed categories. The categories and characteristics of ethical apparel products are described in the following section.

Table 2.1 *Classification of ethical apparel characteristics.*

<table>
<thead>
<tr>
<th>Ethical Category</th>
<th>Ethical Characteristic</th>
<th>Literature Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Responsibility</strong></td>
<td>Organic material</td>
<td>Bhattacharya and Sen (2004); Freestone and MGoldrick (2008); Han and Chung (2014); Kunz et al. (2016); Peloza and Shang (2011); Reimers et al. (2016)</td>
</tr>
<tr>
<td></td>
<td>Recycled material</td>
<td>Bhattacharya and Sen (2004), Freestone and MGoldrick (2008); Henninger et al. (2016); Kunz et al. (2016); Patagonia (2013); Reimers et al. (2016)</td>
</tr>
<tr>
<td></td>
<td>Resource use: <strong>water, energy</strong>, non-renewable resources</td>
<td>Kunz et al. (2016); Fletcher (2008); Hill and Lee (2012); Sumner (2015)</td>
</tr>
<tr>
<td></td>
<td>Pollution: chemicals used in agriculture, chemical byproducts of textile production, carbon emissions/ climate change, water pollution, waste management, degradation of nature</td>
<td>Kadolph and Marketti (2017); Kunz et al. (2016); Fletcher (2008); Hill and Lee (2012); Sumner (2015)</td>
</tr>
<tr>
<td><strong>Human welfare</strong></td>
<td><strong>Fair trade</strong>: fair wages, support for workers, enriching lives</td>
<td>Bhaduri and Ha-Brookshire (2011); Bhattacharya and Sen (2004); Freestone and MGoldrick (2008); Henninger et al. (2016); Reimers et al. (2016)</td>
</tr>
<tr>
<td></td>
<td>Fair labor: human rights, <strong>safe working conditions</strong>, support for diversity, no harassment, fair work hours, no forced labor, no child labor, no abuse, no discrimination</td>
<td>Bhaduri and Ha-Brookshire (2015); Freestone and MGoldrick (2008); Henninger et al. (2016); Hwang et al. (2015); Patagonia (2018b); Reimers et al. (2016)</td>
</tr>
</tbody>
</table>

Note: Bolded characteristics were explored in the present study.
Table 2.1 continued

<table>
<thead>
<tr>
<th>Ethical Category</th>
<th>Ethical Characteristic</th>
<th>Literature Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal welfare</td>
<td>Cruelty free, no animal testing, no animal byproducts, fair treatment of animals used for natural fibers (e.g., wool)</td>
<td>Freestone and MGoldrick (2008); Lee (2014); Patagonia (2018a); Reimers et al. (2016)</td>
</tr>
<tr>
<td>Philanthropy</td>
<td>Portion of sales donated to charity, cash donations not linked to purchase, support for charities, community involvement, employee volunteerism</td>
<td>Becker-Olsen, Cudmore, and Hill (2006); Bhattacharya and Sen (2004); Peloza and Shang (2011)</td>
</tr>
</tbody>
</table>

Environmental Responsibility

Raw materials to create textile and apparel products include fibers such as cotton, polyester, wool, leather, rayon/viscose, and many others. Other materials used as inputs to manufacture garments also include zippers, snaps, hooks and other closures that are often made of metals and plastics, among other materials. Environmental impact from raw and input materials include chemical byproducts, water and energy use and contribution to climate change through CO2 emissions (Kunz et al., 2016; Fletcher, 2008). Sumner (2015) showed that the raw materials and manufacturing phase of the apparel product lifecycle is generally the most water intensive and the second most energy intensive. However, the impact of different stages of the product lifecycle vary based on the product type and consumer habits, such as how often they wash the garment (Muthu, 2015). Growing cotton uses large quantities of water and pesticides, which lead to pollution and the degradation of natural environments (Kadolph & Marcketti,
Synthetic materials, such as polyester or nylon, take less water to produce than cotton, but use a lot of energy and are made from non-renewable resources (Kadolph & Marcketti, 2017).

Examples of raw materials that decrease the environmental impact include organic and recycled fibers (Fletcher, 2008). For instance, organic cotton is grown without the use of synthetic pesticides, fertilizers, herbicides, or defoliants to reduce the overall chemical toxicity of cotton (Kadolph & Marcketti, 2017). Recycled polyester, the most commonly available recycled synthetic fiber (Fletcher, 2008), takes less energy to produce and reduces the use of non-renewable resources, while also diverting plastics from landfills (Kadolph & Marcketti, 2017; Patagonia, 2013).

Reasons for consumers to purchase apparel made of environmentally friendly raw materials can vary. Hustvedt and Dickson (2009) found that most adult respondents over 50 intended to purchase apparel made of organic cotton because of health benefits, followed by supporting organic farming, and higher product quality. Han and Chung (2014) reported that Korean consumers of all ages had positive attitude towards purchasing organic cotton due to perceived environmental and health benefits. Multiple studies (e.g., Bhaduri & Ha-Brookshire, 2011; Hill & Lee, 2012; Hwang et al., 2015) reported that recycled and organic content in apparel was somewhat important to Millennials, but not as important as social concerns, such as human welfare.

Based on common options of environmentally responsible apparel products currently available in the market and previous research findings, organic cotton and recycled polyester characteristics were examined in this study. Large amounts of water are used throughout the product lifecycle of apparel, especially for cotton used to make common apparel items like denim (Kadolph & Marcketti, 2017; Muthu, 2015; Sumner, 2015); therefore, reduced water use
was investigated as a characteristic. Reduced energy consumption was also included as an important characteristic because textile and apparel production and distribution are known to be energy intensive processes (Fletcher, 2008; Sumner, 2015). Additionally, since the textile and apparel industry is one of the major polluting manufacturing sectors (Armstrong & LeHew, 2011; Sweeny, 2015), reduced pollution was explored.

**Human Welfare**

Most apparel companies address human rights and fair treatment of workers including wages, gender equity, no discrimination, no child labor, no forced labor, no harassment and safe working conditions in their CSR policies (Peloza & Shang, 2011). Bhaduri and Ha-Brookshire (2011) found that when asked about ethical business practices of apparel companies, respondents were more concerned with the treatment of workers during the manufacturing process than environmental issues. Similarly, Hwang et al. (2015) discovered that consumers chose fair trade as the most important product aspect over organic and recycled content in ethical apparel. Bhaduri and Ha-Brookshire (2015) observed that consumers viewed fair labor messages that included specific information about wages, no child labor, and safe work environment as more transparent and appealing than messages that were vague. Shen et al. (2012) also found that consumers in Hong Kong were more concerned with human rights than environmental issues. Similarly, Reimers et al. (2016) reported that employee welfare was the second most important characteristic, behind animal welfare, of ethical apparel for Australian consumers.

In extant literature, the distinction between different aspects of human welfare was not clear. Fair trade, fair labor, wages, and safe working conditions often overlap, making it confusing for consumers to understand the difference and for researchers to delineate between different characteristics. For example, the human-related messages that consumers were exposed
to by Hwang et al. (2015) and Bhaduri and Ha-Brookshire (2015) included aspects of fair trade and working conditions together. The present study distinguished between fair trade and safe working conditions to define each construct, and then investigated the importance of these two distinct characteristics to consumers.

**Fair trade**

Fair trade is a common ethical business practice used by apparel companies, and has been recognized as important to consumers. Fair trade is complex and often hard for consumers to understand and define (Hwang et al., 2015). Kunz et al. (2016) explained that fair trade is about developing initiatives or partnerships with small farmers and artisans in newly developing countries. Fair trade is also associated with paying fair prices for materials and fair wages at every level of the supply chain (Fair Trade America, 2017). Patagonia explains fair trade as a partnership through which the company pays a premium for fair trade sewn items (Marcario, 2016). The extra money goes into an account that is controlled by the factory employees to spend as they see fit; some have built daycares, while others have taken pay bonuses (Marcario, 2016).

Hwang et al. (2015) realized that Millennial consumers were least knowledgeable about the meaning of fair trade, but thought it was the most important ethical product characteristic. Ma, Littrell, and Niehm (2012) learned that Millennial females with positive attitude about fair trade products had strong purchase intention towards fair trade non-food products. Therefore, fair trade is a characteristic of ethical apparel worth exploring further. In the present research, fair trade was associated with fair wages and bonuses used to enrich the lives of people who make apparel products.
**Fair labor**

Fair labor is an overarching concept that encompasses the fair treatment of workers and safe working conditions. The Fair Labor Association (FLA) is an organization that works to ensure ethical treatment of workers globally throughout the supply chain (Fair Labor Association, n.d.). The FLA sets codes of conduct for factories to follow and helps companies monitor their factories (Fair Labor Association, 2012). Companies that join FLA commit to labor practices with safe and humane working conditions throughout the supply chain. Examples of apparel companies that are FLA members include: Adidas, Fruit of the Loom, Nike, Under Armour, and Patagonia (Fair Labor Association, n.d.). Patagonia has a code of conduct that includes policies to protect workers from child labor, forced labor, harassment, abuse, discrimination, and freedom of association. They also have policies about hours of work and health and safety regulations; they work with textile mills and apparel factories to ensure these labor policies are enforced throughout the supply chain (Patagonia, 2018b). Like fair trade, the term fair labor might be confusing to consumers and they might not know the difference if the terms fair trade and fair labor are presented together. Therefore, the term safe working conditions was used in information presented in the study. With more attention on working conditions after the Rana Plaza building collapse (Yardley, 2013) and previous research that safe working conditions are important to consumers (Henninger et al., 2016; Hwang et al., 2015) this is an important characteristic to explore. For the present study, safe working conditions were examined as fair treatment of workers and factories that are safe and healthy.

**Animal Welfare**

“Cruelty free” has become a buzzword in the beauty industry, which is closely tied to the fashion industry. “Not tested on animals” was the most important packaging claim for beauty
products for 57% of adults surveyed (Chitrakorn, 2016, para. 6). While the Cruelty Free International logo can only be displayed on cosmetics and household products (Leaping Bunny, 2014), there is growing support for cruelty free apparel as well. Due to animal protection groups’ protests and growing consumer concern, there is a movement away from fur, leather, down, endangered skins, and wool in cruelty free fashion brands (Dobson, 2016).

There is limited empirical research relating cruelty free messages and clothing purchase intention, as animal welfare has been overlooked as an important characteristic of ethical apparel. Reimers et al. (2016) discovered that animal welfare had twice the influence of environmental responsibility and employee welfare on consumer attitude and purchase intention of ethical apparel in a sample of Australian consumers. Lee (2014) gave participants information that was either for the use of animal products, against the use of animal products, or neutral about the use of animal products. The type of information given to consumers about the use of animal products in apparel, whether positive or negative, had an influence over their attitude towards purchasing animal-based apparel. Consumers who viewed information from PETA, against animal products, had more negative reactions to animal-based fashion products. Therefore, cruelty free is an important characteristic for ethical apparel. In the present study, cruelty free was defined as apparel that does not contain animal products and was not tested on animals (Reimers et al., 2016).

Philanthropy

Philanthropy is the practice of giving back to communities and supporting non-profit organizations. Peloza and Shang (2011) reported that philanthropy was the most common CSR practice used by companies they researched. Examples of philanthropic activities practiced by companies include: (a) cause-related marketing (i.e., a portion of purchase goes to charity); (b)
cash donations not linked to purchase; (c) support for charities; (d) community involvement; and (e) employee volunteerism. Cause-related marketing, where a portion of sales goes to charity, was reported to be the most common philanthropy activity (Peloza & Shang, 2011). Examples of initiatives are cancer research, women’s equality, and support for general environmental or social causes. For instance, since 1986, Patagonia has donated 10% of profits, or 1% of sales (whichever is greater) to grass roots environmental groups (Patagonia, 2018c). Becker-Olsen et al. (2006) found that consumers had positive reactions to companies that supported social initiatives, especially when those initiatives directly related to the company’s focus or mission (e.g., Toys R Us supporting children’s organizations). Consumers appreciate that some of their money goes to a cause (Bhattacharya & Sen, 2004). Philanthropy in the form of cause-related marketing, where a portion of sales go to charity, is the most common philanthropic business practice of apparel companies and the philanthropic practice that consumers most appreciate. Therefore, giving a portion of proceeds to charity was examined in the present study.

**Consumer Decision Making**

**Theory of Reasoned Action**

Theory of reasoned action, or TRA, (Ajzen & Fishbein, 1980) proposed that an individual’s attitude and belief about an action along with subjective norm help determine behavioral intention. In turn, behavioral intention predicts actual behavior (Ajzen & Fishbein, 1980). People are more likely to intend to perform a behavior when their attitude and subjective norm support it in a positive way. TRA has been used in multiple studies concerning consumer purchase intention of socially responsible products (i.e., Bhaduri & Ha-Brookshire, 2011; Cowan & Kinley, 2014; Hwang et al., 2015; Kang & Hustvedt, 2014). TRA has also been used extensively in communications and advertising literature to explain the relationship between
Attitude towards purchase and purchase intention

Previous research using TRA has found that attitude towards purchasing ethical products has a positive influence on purchase intention. These findings are consistent for U.S. college students (Hwang et al., 2015; Zheng & Chi, 2015) and a random sample of U.S. consumers (Cowan & Kinley, 2014). Consumers with positive beliefs about, and attitude towards purchasing, fair trade products also showed greater purchase intention (Ma et al., 2012). de Lenne and Vandenbosch (2017) observed that positive attitude towards purchasing sustainable apparel was positively related to purchase intention. Based on TRA and extant research support, the following hypothesis was proposed:

H1: Attitude towards purchasing ethical apparel products is positively related to purchase intention of these products.

Subjective norm

Subjective norm, or social norm, is a person’s belief that members of a given reference group expect them to perform the behavior in question (Ajzen & Fishbein, 1980). In the case of ethical apparel, consumers may perceive pressure from friends, family, and others to purchase, or not purchase, these products. In the original TRA theory, social norm influences attitude towards purchase, which influences purchase intention. However, empirical research has presented modified versions of TRA that suggest social norm can also directly influence purchase intention. Cowan and Kinley (2014) reported a strong positive correlation between subjective norm and intent to purchase ethical apparel. In fact, subjective norm was the most significant predictor of purchase intention of ethical products, in comparison with environmental concern,
knowledge, attitudes, guilt, and perceived convenience. Similarly, Freestone and McGoldrick (2008) suggested that positive social motivators, or approval from significant others, had more impact on ethical behavior than personal motivators did, especially, in the case of consumers who were less concerned about the environment. Han and Chung (2014) found a strong relationship between subjective norm and organic cotton purchase intention in a sample of Korean consumers. The authors proposed that this could be due to the collectivist culture in Korea.

Zheng and Chi (2015) found that Millennial consumers are more likely to engage in ethical consumption behavior if their family, friends or other influential people had purchased or recommended ethical products. The authors suggested that word-of-mouth (WOM), both in person and online, could play a critical role in attracting customers to ethical products. The Internet has had a revolutionary impact on WOM, expanding the concept to electronic word-of-mouth (eWOM) in online spaces (Chu & Kim, 2018). Further, social media has created a readily available and popular platform for consumers to share product information with each other that is perceived as more trustworthy than information directly from companies (Chu & Kim, 2018). TRA was conceptualized before the invention of the Internet and social media, when subjective norm was more likely to be from friends and family. The Internet and social media are recognized in communication and advertising literature as effective delivery methods for influential eWOM (Chu & Kim; Kim et al., 2018). The opportunity for easy interaction with people outside the close circle of friends and family using social media makes it logical to study subjective norm as pressure from multiple groups, including sources of eWOM.

In a recent study, young consumers, who were exposed to the social media of eco-activists and sustainable brands, believed that relatives and people close to them purchased
sustainable apparel (de Lenne & Vandenbosch, 2017). In contrast, young consumers exposed to social media from fashion bloggers and fast fashion brands that were not ethically focused believed that less of their relatives and people close to them bought sustainable apparel. As a result, social media in favor of sustainable apparel had a positive influence on attitude towards purchase and purchase intention, whereas social media not in favor of sustainable apparel had a negative influence (de Lenne & Vandenbosch, 2017). Therefore, subjective norm and the influence over attitude towards purchase and purchase intention were examined in the form eWOM in the current study.

*Electronic word-of-mouth*

Social media are used by companies to advertise products and can facilitate consumer-brand engagement. The more consumers interact with a brand, the greater relationships they build with the brand, which can lead to positive eWOM (Lee & Youn, 2009). eWOM is a positive or negative comment made about a company, brand or product on the Internet (See-To & Ho, 2014). This can include comments on social media and online reviews of products (Cheung et al., 2009; Seifert & Kwon, 2015). Using eWOM, consumers can advocate for a brand online, and these comments can act as social influence, or subjective norm (Seifert & Kwon, 2015).

Online consumer recommendations can influence attitude towards purchase and purchase intention of a product (Cheung et al., 2009). Consumers can share positive experiences with each other through eWOM, which positively influences trust for a brand and purchase intention; however, negative eWOM has the opposite effect (Park & Lee, 2009; Seifert & Kwon, 2015). eWOM is an effective way to promote brands and products, both on the company website in the form of product reviews, and through social media (Bamini & Kahnil, 2014; Lee & Youn, 2009).
Increasingly, consumers look to, and trust, other consumers for product information given as comments or reviews (Cheung et al., 2009; Salazar et al., 2012). In marketing research, eWOM’s significant influence on sales elasticity has been studied for books, hotels, craft beer, and consumer electronics (Floyd, Freling, Alhoquail, Cho, & Freling, 2014).

**Online consumer comments**

Online reviews of products are consumer-created information that prospective customers view as more trustworthy than seller-created information (Park, Lee, & Han, 2007). In the communication field, online reviews have been studied in terms of content, source-related characteristics, impact on attitude and purchase intention, usefulness of information, and review creditability (Kim, Maslowska, & Malthouse, 2017). Increasingly, consumers look at online reviews of products to influence their purchase decisions (Kim et al., 2018; Kim et al., 2017). Online consumer reviews can be persuasive due to informational content of the review and the social influence of all of the combined reviews in the form of product rating (Cheung et al., 2009; Kim et al., 2017; Moran & Muzellec, 2014). When most of the reviews are consistently framed the same way (positive, neutral, or negative), also referred to as review valence, the normative power of the reviews to influence attitude towards purchase and purchase intention is increased, and consumers find the reviews more credible (Cheung et al., 2009; Kim et al., 2017; Lee, Park & Han, 2008; Moran & Muzellec, 2014).

Communication research has confirmed a positive relationship between eWOM, attitude, and purchase intention (Erkan & Evans, 2016; Kim et al., 2018). Regarding ethical apparel, recent research found that exposure to subjective norm through social media can influence attitude toward purchase of ethical apparel (de Lenne & Vandenbosch, 2017). As consumers increasingly trust other customer opinions, eWOM in the form of online consumer comments can
provide a powerful normative influence (Cheung et al., 2009; Kim et al., 2017; Lee et al., 2008; Moran & Muzellec, 2014). Based on the review of the TRA and previous research, positive eWOM has a positive influence on attitude towards purchase and purchase intention, while negative eWOM has the opposite influence (Lee et al., 2008; Park & Lee, 2009). Therefore, the following hypotheses were proposed:

H2a: Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to neutral eWOM.

H2b: Consumers exposed to neutral eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.

H2c: Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.

H3a: Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to neutral eWOM.

H3b: Consumers exposed to neutral eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.

H3c: Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.

Social Media

Social media is defined as Internet-based applications that allow users to generate, remix, and exchange content (Junco, 2014; Kaplan & Haenlein, 2010). Social media also allows for user interaction (Bal, Grewal, Mills, & Ottley, 2015; Junco, 2014). The “audience” is active and both produces and receives content, which can be shared from one-to-one or many-to-many, as opposed to traditional mass communication flow, which is from one-to-many (Bilandzic et al.,
Social media also facilitates interaction with the content by allowing consumers to comment, exchange information and opinions and participate in eWOM (Chu and Kim, 2011; Sundar & Kim, 2005). Neier and Zayer (2015) divided social media applications into five categories based on application and intended use including: (a) social networking (e.g., Facebook); (b) video content and sharing sites (e.g., YouTube and Vine); (c) blogging; (d) pinning sites (e.g., Pinterest); and (e) microblogging (e.g., Twitter). Social media can be an efficient and effective way to inform consumers about ethical products (Bamini & Kahnil, 2014).

Social media is recognized as an effective way to promote products and services and build brand loyalty through eWOM (Chu & Kim, 2018). Social media can be used to promote products through online review sites (Kim et al, 2017; Kim et al., 2018; Lee & Youn, 2009), brand sponsored social media (Lee & Youn, 2009; Moran & Muzellec, 2017), personal blogs (Lee & Youn, 2009), and personal social media (Moran & Muzellec, 2017). Recently, research has also focused on advertising with viral posts that are created specifically to encourage consumers to share company-generated information on personal social media (Chu & Kim, 2018).

Companies struggle to communicate their ethical activities to consumers in an informative and easy to understand way (Grimmer & Bingham, 2013; Hill & Lee, 2012). Hill and Lee (2012) noted that consumers need more direct and specific education about ethical apparel. De Lenne and Vandenbosch (2017) found that young consumers were rarely exposed to information about sustainable apparel on social media. The authors concluded that social media has a great potential for sustainable apparel brands to build awareness and increase purchase of products. Advertising and communications researchers have suggested that social media websites are useful in facilitating eWOM and interactions between consumers and brands (Erkan
& Evans, 2016). Other research has also acknowledged that information, or knowledge, about ethical products can influence attitude and purchase intention of ethical apparel (Baytar & Ashdown, 2014; Bhaduri & Ha-Brookshire, 2011; Kim & Damhorst, 1998, Kozar & Hiller Connell, 2013).

Social media, such as blogs and videos, can combine images and text to inform consumers about ethical apparel in a more consumer-centric and easy to understand approach. Information about ethical apparel is often vague, scattered, and technical, which makes it hard for consumers to apprehend. Social media is an important new tool for communicating information to consumers in a more streamlined way that is easily accessible to large groups of people (Luck & Ginanti, 2013).

Social Media Use

As of 2018, 73% of U.S. adults use at least one social media platform (Smith & Anderson, 2018). YouTube is the most popular social media platform across all age groups and is used by 73% of all adults. Facebook is in a close second place (68%), followed by Instagram (35%), Pinterest (29%) and Snapchat (27%).

According to Smith and Anderson (2018), younger Americans (19-29) use social media the most (88%), followed by those 30-49 (78%), then ages 50-64 (64%), and finally, 65 and older (37%). YouTube is used by 94% of 18 to 24 year olds (Smith & Anderson, 2018). Baizley (2018) reported that 82% of older adults (i.e., Baby Boomers) use social media to get information about companies. Since social media is used by consumers of all ages, it can be an effective tool to spread information. It is also important to note that many links on popular social media including, Facebook, Instagram, Pinterest, and Snapchat, are connected to YouTube
videos or blog content; therefore, blogs and videos as media for communicating information were examined in this study.

**Blogs**

Blogs are a digital diary, or personal webpage, that allow people to document their life (Kaplan & Haenlein, 2010). They can combine text, photo, and video and allow for comments and discussions from readers (Bullas, 2012). Blogs are used by businesses to educate consumers, build trust (Bullas, 2012) and update customers about important developments to improve the transparency of the company (Kaplan & Haenlein, 2010). Many ethical apparel companies, including Patagonia and Stella McCartney, have blogs linked to their website. Lee and Youn (2009) compared the influence of eWOM posted on a personal blog, product review website, and brand website on intention to rent an apartment. The authors concluded that the source of information had no significant influence on judgment about product.

“Green” blogs can disseminate all levels of environmental knowledge, making them a tool of choice for people seeking information (Luck & Ginanti, 2013). Further, the intimacy of a blog can provide a more personal interaction that might influence attitude and behavior (Thorson & Rogers, 2013). Therefore, blogs might be a good choice to distribute information about ethical apparel and were examined in this study.

**Video**

Video social media is a community where users can share and view video content that also allows for comments and discussion among users (Kaplan & Haenlein, 2010). De Lenne and Vandenbosch (2017, p. 14) suggested that the effectiveness of social media to promote sustainable apparel to young adults can be enhanced with more “vivid” and interactive content, such as video. Baytar and Ashdown (2014) found that video was more effective than traditional
teaching methods at changing students’ attitude and behavior regarding sustainable apparel. Further, members of Generation Z prefer YouTube videos above all other social media for learning new information and favor brands that communicate with them through the app instead of another platform (Seemiller & Grace, 2015; WGSN, 2016). Similarly, Millennials believed that YouTube has the most potential of all the social media types to enhance learning through sharing content, discussion, and discovering new things (Neier & Zayer, 2015).

YouTube is the largest video sharing social media platform (Kaplan & Haenlein, 2010; Smith & Anderson, 2018). As of March 2018, YouTube was the most used social media among Americans over 18 years old (Smith & Anderson, 2018). In addition to being the favorite app for learning among young people, YouTube is also popular for marketing to Baby Boomers, who were reported to trust in, and share video content, more than Millennial and Generation X consumers (Elder, 2017). According to Pearson, Tindle, Ferguson, Ryan, and Litchfield (2016), YouTube could be a good tool to distribute information about ethical issues to increase attitude and behavioral intention towards social action and ethical consumer purchases. However, the authors noted that there is need for further exploration of this topic. Therefore, YouTube can be considered an effective way to spread information about ethical apparel and was examined in this study.

**Differences between Blog and Video**

Different types of media have different levels of perceived interactivity and, therefore, effect the viewer in different ways. As the Internet evolved, it has changed from static content to an interactive environment where users can create and exchange content, resulting in a more collaborative environment (Kaplan & Haenlein, 2010). The core concepts underlying the theory of interactivity is that users can engage with content, have the ability to control content, and can
participate in communication (McMillan & Hwang, 2001; Sundar & Kim, 2005). Social media has enhanced the interactivity of the Internet because it allows the user to have more control over the information they see and can facilitate communication among consumers and between consumers and businesses (Kaplan & Haenlein, 2010; Sundar & Kim, 2005).

Blog and video social media have different levels of perceived interactivity and media richness and, therefore, might influence consumers in different ways. Sundar and Kim (2005) studied effectiveness of online advertising and found that animated advertisements were perceived by consumers as the most interactive in comparison with ad shape (i.e. banner or full page) and ability to click hyperlinks. Animated ads led to greater product knowledge and higher consumer involvement. YouTube was classified by Kaplan and Haenlein (2010) as a content sharing community with medium media richness. In this classification, interactive virtual worlds (e.g., social worlds and gaming) were the only type of media with more richness than video.

Blogs have been found more personalized and intimate in nature than video or other social media (Thorson & Rogers, 2006). Blogs can provide interaction between users or between the user and a document (i.e., blog post). The personalization of blogs can increase the perceived interactivity of blogs for some consumers (Kaplan & Haenlein, 2010; Thorson & Rogers, 2006). However, Kaplan and Haenlein (2010) classified blogs as having low media richness.

Due to the differences in perceived interactivity and media richness, information presented through blog was expected to have different impact on attitude towards purchase and purchase intention of ethical apparel than information delivered via video. Therefore, the following hypotheses were proposed:
H4a: Consumers have higher attitude towards purchasing ethical apparel when exposed to information through video than consumers exposed to the same information through blog.

H4b: Consumers have higher purchase intention of ethical apparel when exposed to information through video than consumers exposed to the same information through blog.

**Price**

Higher prices of socially responsible/ethical products can deter consumers from purchasing these products (Bray Johns, & Kilburn, 2011; Kozar & Hiller Connell, 2013). However, there is also evidence that when consumers trust that they are buying products from a brand that is operating in an ethical way, they might be willing to pay more for those products (Bishop, 2018; Castaldo et al., 2009). A recent consumer report found that Millennial and Generation Z respondents were willing to pay more for products that were from companies committed to being environmentally friendly and socially responsible (Nielson, 2015).

Bhaduri and Ha-Brookshire (2011) found that consumers preferred to buy ethically produced apparel, but if the price was higher, that was taken into account. Consumers interviewed in this study reported the willingness to pay from 15 to 100 percent more for ethically produced apparel, but mentioned limits in their budgets. The authors found that consumers who had more knowledge about negative impacts of the apparel industry were more willing to pay a premium price, regardless of the additional costs. The study concluded that consumers buy ethical apparel when they feel it is worth the extra money they pay for it, and recommended that ethical companies should be transparent and provide information about their business practices to increase the value of their product (Bhaduri & Ha-Brookshire, 2011).
Grimmer and Bingham (2013) manipulated the price of cell phones from responsible companies to address how much extra people will pay for ethical products. The authors found that consumers showed higher purchase intention for cell phones from responsible companies; however, there was a significant difference in purchase intention when the price was high versus low. This research supported the “critical point” discussed by Freestone and McGoldrick (2008). This occurs when higher prices outweigh ethical benefits of products, and consumers opt for lower priced, possibly less ethical, options. Existing research supports that consumers are willing to pay more for ethical products as long as the price is not too high. However, apparel research has not tested actual price points for ethical products. The current study exposed participants to either a high or low price option to evaluate the influence of price on attitude and purchase intention of ethical apparel. The following hypotheses were proposed:

H5a: When product price is low, attitude towards purchase is higher than when price is high.

H5b: When product price is low, purchase intention is higher than when price is high. Figure 2.1 serves as a visual representation of the proposed relationships between eWOM, information delivery source (social media), price, attitude towards purchase and purchase intention of ethical apparel products.
Generational Cohorts

Generational cohorts are commonly used to segment consumers based on age for marketing purposes (Schewe & Meredith, 2004). Consumer past experiences can help shape their ethical orientation and purchasing behavior (Jayawardhena et al., 2016; Muncy & Vitell, 1992). It is assumed that events experienced by all people born around the same time have similar influence on their values and consumer motivations, suggesting that generational cohorts are a relevant way to explore consumer behavior, including ethics (Arli & Pekerti, 2016). Retailers and consumer researchers have focused on understanding Millennials, but are now scrambling to learn about Generation Z and how the two groups are different (Schlossberg, 2016). Previous research about the purchase of ethical apparel products has focused mainly on Millennials (e.g., Bucic et al., 2012; Hill & Lee, 2012; Hwang et al., 2015), or Baby Boomers (Hustvedt & Dickson, 2009). Few recent studies include multiple age groups, and there is very limited empirical research specifically about Generation X and Generation Z regarding ethical apparel.
consumption. Baizley (2018) suggested that generational cohorts have different reactions to ethical products and the advertising of those products. Therefore, this study will examine the four major generational cohorts of Baby Boomers, Generation X, Millennials, and Generation Z to explore how they perceive different ethical apparel characteristics.

Scholarly and consumer research (e.g., WGSN, Neilson) have conflicting findings about ethical apparel consumption by generational cohorts. Scholars argue that middle-aged consumer groups (i.e., Generation X and younger Baby Boomers) are more likely to purchase ethical products because they have higher income and their past experiences make them more ethically focused (Jayawardhena et al., 2016). Similarly, Arli and Pekerti (2016) found that Generation X and Baby Boomers were more ethically focused than Millennials, who were more impulsive. In contrast, consumer research states that younger generational cohorts (i.e., Generation Z and Millennials) are more ethically focused than the two older groups, especially more than Baby Boomers (Baizley, 2018; WGSN Consumer Insight, 2016). This discrepancy warrants the need for more research into ethical consumption as it relates to generational cohorts.

**Baby Boomers**

Baby Boomers are defined as those born between 1946 and 1964 (Fry, 2016). In 2016, there were an estimated 74 million Baby Boomers in the US (CNN, 2017). As of 2018, Baby Boomers were between the ages of 54 and 72. This cohort were the original activists of social change in the 1960s, but recent consumer report findings suggest that they are mostly unaware of what ethical brands and products (Baizley, 2018). Hustvedt and Dickson (2009) surveyed 377 people who fell into the Baby Boomer generation and found that 38% of them had interest in purchasing organic cotton based on the need to support organic agriculture. In this group, fair trade was not an important factor for purchase intention of apparel. Recently, Baby Boomers
have been most receptive to ethical cars and travel options (Baizley, 2018). Based on the existing literature, older Baby Boomers might be less likely to purchase ethical products due to fixed incomes, set routines and habits, and low awareness of ethical trends (e.g., cruelty free, fair trade). However, larger incomes and more life experiences can make other Baby Boomers more-ethically focused (Jayawardhena et al. 2016). Based on limited existing research, Baby Boomers might support more established ethical concepts, such as organic and recycled content.

**Generation X**

Generation X is defined as those born between 1965 and 1979 (CNN, 2017), who were between the ages of 39-53 in 2018. In 2016, this group had a U.S. population of around 66 million (Lister, 2017). Generation X is sometimes ignored by marketing firms, because they have the smallest population of the generational cohorts (WGSN Consumer Insight, 2016). Yet, this is an important consumer group, since many are at the prime stage of their careers and might have fewer debts (e.g., college loan) than other cohorts.

Generation X has been defined by cynicism and rebelliousness, but in middle age, they are expected to put family first and seek to give back to society (Lister, 2017; WGSN Consumer Insight, 2017). They have been found to purchase organic and fair trade groceries, ethical luxury items, and ethical apparel (Baizley, 2018). WGSN Consumer Insight (2017) reported that Generation X is expected to engage in purposeful experiences and activism, which will lead them to support brands that engage in social and environmental change. The only empirical ethical apparel research that included Generation X found they were supportive of fair trade practices and local activism (Litrell, Ma, & Halepete, 2005). Empirical research about general ethical behavior expects the Generation X cohort to have higher income and greater life experience that lead to ethical purchase behavior. Based on very limited existing research,
Generation X consumers might be more attracted to philanthropy, organic materials, and fair trade.

**Millennials**

Millennials are defined differently in various sources, but generally refer to those born between 1980-1994 (Bridgeworks, 2017), making them 24-38 years old in 2018. Generation Y is sometimes also referred to as a separate generation group, but the age range for Generation Y falls within the Millennial group. In the US, Millennials had an estimated population of 83 million in 2016 (CNN, 2017), making them the largest generational cohort.

Millennials are perceived as concerned with the environment, but lack knowledge about specific issues related to ethical apparel (Hill & Lee, 2012). These consumers listed energy efficiency, water usage, and reduction of fabric waste as the most important concerns in the apparel industry; laundering and care were the least important. Organic and recycled materials were neither the most or the least important factors for ethical apparel in this study; however, the sample was textile and apparel students, who are more knowledgeable about the industry than average consumers (Hill & Lee, 2012). In 2015, Hwang et al. discovered that Millennials 18-24, had a strong moral obligation to purchase ethical apparel products and recommended appealing to human rights when marketing products to this group. The authors found that Millennials were most receptive to ethical products that help people, such as fair trade, over recycled or organic content.

Bucic et al. (2012) uncovered that Millennials in India and Australia were motivated by positive social influences when purchasing ethical products, which is consistent with the findings on the U.S. Millennials. Product attributes that were most important to Millennials in this study were price, quality, convenience, brand, packaging, ingredients, and whether the company
supported a charity. Baizley (2018) also noted that Millennials are known to support brands that
donate to charitable causes. Based on existing research, Millennials were expected to favor
human welfare issues, including fair trade and safe working conditions, as well as donations to
charity.

**Generation Z**

Generation Z is defined as those born between 1995 and 2010, who were 8-23 years old
in 2018 (Seemiller & Grace, 2015). According to WGSN (2016), they are expected to make up
40% of consumers by 2020. Educating and marketing to Generation Z is different, because they
are more tech savvy, tech connected, price conscious, and research products more than
Millennials (Bridgeworks, 2017; WGSN, 2016).

Seemiller and Grace (2015) found that many members of Generation Z are
environmentally conscious and will not buy products from businesses that do not align with their
personal values. They also place value on healthy lifestyles as well as human and animal rights
issues (Baizley, 2018; Seemiller & Grace, 2015). They are expected to support businesses that
have ethical practices and engage in behavior that supports human rights. They respect
companies that participate in philanthropic activities (Baizley, 2018; Seemiller & Grace, 2015).
There is limited academic research about generation Z, primarily because they are still very
young, but they are considered an important consumer group for ethical products, and companies
want to know how they differ from Millennials (Schlossberg, 2016). Generation Z was predicted
to favor products that incorporate human rights and philanthropy, similar to Millennials.
However, Generation Z might be more attracted to cruelty free products than other groups.
Generation Group Differences

The four generational cohorts exhibit different values and behaviors in regards to ethical consumption (Arli & Pekerti, 2016; Baizley, 2018; Jayawardhena et al., 2016). Scholarly and market research produced conflicting findings about ethical purchase behavior and ethical apparel characteristics that each generational group might prefer. A summary of research and possible product characteristics each cohort might find important are provided in Table 2.2. Since there is very limited research, the following exploratory hypothesis was proposed: H6: Generational cohorts differ in ethical apparel characteristics they find important.
Table 2.2 *Summary of generational cohort research and proposed important ethical characteristics.*

<table>
<thead>
<tr>
<th>Generation Cohort</th>
<th>Market Research</th>
<th>Scholarly Research: ethical apparel related</th>
<th>Scholarly Research: general ethical behavior</th>
<th>Proposed ethical characteristics found important</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baby Boomer</strong></td>
<td>Unaware of ethical brands (Baizley, 2018)</td>
<td>Organic content (Dickson &amp; Hustvedt, 2009)</td>
<td>Older: less likely to purchase ethical products based on fixed incomes, set habits, low awareness of new ethical trends (Jayawardhena et al., 2016)</td>
<td>Organic content Recycled content</td>
</tr>
<tr>
<td></td>
<td>Support ethical cars and travel (Baizley, 2018)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Generation X</strong></td>
<td>Give back to society (Lister, 2017; WGSN Consumer Insight, 2017)</td>
<td>Fair trade and local activism (Litrell et al., 2005)</td>
<td>More ethically focused based on life experience and higher income (Arli &amp; Pekerti, 2016; Jayawardhena et al., 2016)</td>
<td>Organic content Fair trade Philanthropy</td>
</tr>
<tr>
<td></td>
<td>Organic and fair trade groceries (Baizley, 2018)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2.2 continued

<table>
<thead>
<tr>
<th>Generation Cohort</th>
<th>Market Research</th>
<th>Scholarly Research: ethical apparel related</th>
<th>Scholarly Research: general ethical behavior</th>
<th>Proposed ethical characteristics found important</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generation Z</strong></td>
<td>Human rights</td>
<td>None available</td>
<td>None available</td>
<td>Fair trade</td>
</tr>
<tr>
<td></td>
<td>(Baizley, 2018; Seemiller &amp; Grace, 2015)</td>
<td></td>
<td></td>
<td>Safe working conditions</td>
</tr>
<tr>
<td></td>
<td>Animal Rights</td>
<td></td>
<td></td>
<td>Cruelty free</td>
</tr>
<tr>
<td></td>
<td>(Baizley, 2018; Seemiller &amp; Grace, 2015)</td>
<td></td>
<td></td>
<td>Philanthropy</td>
</tr>
<tr>
<td></td>
<td>Philanthropy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Baizley, 2018; Seemiller &amp; Grace, 2015)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The six hypotheses examined in this research are summarized in table 2.3.

Table 2.3 Summary of hypotheses.

<table>
<thead>
<tr>
<th>H1</th>
<th>Attitude towards purchasing ethical apparel products is positively related to purchase intention of these products.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2a</td>
<td>Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to neutral eWOM.</td>
</tr>
<tr>
<td>H2b</td>
<td>Consumers exposed to neutral eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.</td>
</tr>
<tr>
<td>H2c</td>
<td>Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.</td>
</tr>
<tr>
<td>H3a</td>
<td>Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to neutral eWOM.</td>
</tr>
<tr>
<td>H3b</td>
<td>Consumers exposed to neutral eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.</td>
</tr>
<tr>
<td>H3c</td>
<td>Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.</td>
</tr>
<tr>
<td>H4a</td>
<td>Consumers have higher attitude towards purchasing ethical apparel when exposed to information through video than consumers exposed to the same information through blog.</td>
</tr>
<tr>
<td>H4b</td>
<td>Consumers have higher purchase intention of ethical apparel when exposed to information through video than consumers exposed to the same information through blog.</td>
</tr>
<tr>
<td>H5a</td>
<td>When product price is low, attitude towards purchase is higher than when price is high.</td>
</tr>
<tr>
<td>H5b</td>
<td>When product price is low, purchase intention is higher than when price is high.</td>
</tr>
<tr>
<td>H6</td>
<td>Generational cohorts differ in ethical apparel characteristics they find important.</td>
</tr>
</tbody>
</table>
CHAPTER 3: METHOD

In this study, consumer attitude towards purchase and purchase intention of ethical apparel products were examined using TRA. Research participants were directed to a web site that had information about a garment. The description of the garment included nine ethical apparel product characteristics presented to participants through social media in either a blog or video format. Product information was identical, except participants were exposed to either a high ($40) or low ($20) price. The product information was followed by constructed consumer comments about the nine ethical apparel characteristics that were either positive, negative or neutral to address the impact of subjective norm through eWOM. To test how consumers were influenced by different types of information delivery, price and subjective norm, a 2 (media type) x 2 (price) x 3 (eWOM type) experimental design was deployed. Participants were also asked to rate the importance of each of the nine product characteristics. This chapter describes the research design and experimental procedure, stimuli development, sample, questionnaire development, pilot-test, data collection, and data analysis.

Research Design and Experimental Procedure

To test the effects of information delivered by different social media, price, and eWOM on attitude towards purchase and purchase intention of ethical apparel, an experiment was planned. A randomized multi-group design with twelve levels of treatment was developed. In the experiment, the same product description and photos were presented to all participants to describe the nine ethical characteristics (see table 2.1) of a garment, including:

- organic cotton,
- recycled polyester,
- fair trade,
safe working conditions,
cruelty free,
donations to charity,
reduced water use,
reduced energy use, and
reduced pollution.

The information was presented to participants through either a blog post on Blogger.com or video on YouTube. Following the blog post and video, participants saw comments that were constructed as either: (a) positive, (b) negative, or (c) neutral. For each media and eWOM condition, a high price and low price option were created. Six blog posts were developed and six YouTube video links were created:

- Stimulus A – blog post with positive consumer comments and high price,
- Stimulus B – blog post with positive consumer comments and low price
- Stimulus C – blog post with negative consumer comments and high price,
- Stimulus D – blog post with negative consumer comments and low price,
- Stimulus E – blog post with neutral consumer comments and high price,
- Stimulus F – blog post with neutral consumer comments and low price,
- Stimulus G – video with positive consumer comments and high price,
- Stimulus H – video with positive consumer comments and low price,
- Stimulus I – video with negative consumer comments and high price,
- Stimulus J – video with negative consumer comments and low price,
- Stimulus K – video with neutral consumer comments and high price, and
- Stimulus L – video with neutral consumer comments and low price.
After reviewing one of the stimulus, all participants were asked to complete the same online questionnaire to measure importance of ethical characteristics, attitude towards purchase, and purchase intention. Demographic information was also collected. The garment information, photos, and a link to a sample blog and video are provided in Appendix A. eWOM comments are provided in Table 3.1

**Stimuli**

**Apparel Item**

The apparel item used in all of the twelve stimuli was a basic dark gray t-shirt. This garment was selected for several reasons. First, it is a gender and age neutral garment and can realistically have all of the ethical characteristics included in the study. Color and style were more important to consumers than ethical properties of apparel in previous research (Dickson & Hustvedt, 2009; Kim & Damhorst, 1998). Kim, Forney, and Arnold (1997) recommended that a basic color and style of garment should be used in ethical apparel research. Dickson and Hustvedt (2009) had participants imagine that a hypothetical t-shirt was in their favorite color and style to avoid this bias. In this study, a dark gray crew neck t-shirt was chosen, due to the basic and neutral color and style. Finally, a t-shirt is a staple garment and most consumers have similar items in their wardrobe.

The t-shirt described was 50% organic cotton and 50% recycled polyester, based on actual t-shirts available from ethical companies, such as Patagonia and PACT (Pact, n.d.; Patagonia, 2018d). It is common for t-shirts, conventional and ethically produced, to be made of a cotton-polyester blend, so the materials should be familiar to participants. The t-shirt had no graphic or any other embellishments (Appendix A).
Description of Ethical Apparel Characteristics

To develop a realistic stimulus, products presented on the websites of several ethical apparel companies were researched. Specifically, product description and presentation at online apparel stores of three ethical apparel companies (Patagonia, Stella McCartney, and PACT) were examined. The content, language, and photos used in the blog and video media to explain ethical features of the t-shirt were adapted from these sources. The photos and description of recycled polyester, organic cotton, fair trade, and human welfare were a combination of information available to consumers on the Patagonia, Stella McCartney, and Pact apparel websites.

Stella McCartney is a well-known pro-animal rights and vegan apparel brand (Dobson, 2016), so the cruelty free information was borrowed from this website (Stella McCartney, 2018). The photo of the “Be Cruelty-Free” logo was borrowed from the Humane Society International’s cruelty free pledge campaign (Appendix A). This logo was chosen instead of the Leaping Bunny logo, which is strongly associated with cosmetics. The philanthropy information about donation to charity was borrowed from the Patagonia web site. Information about water use, energy use, and pollution was combined from the three ethical apparel brand websites (Appendix A).

Development of Blog and Video

A blog post and video were developed to provide information about ethical characteristics of the t-shirt. The blog post was developed using Blogger while the video was created with Adobe Spark and uploaded to YouTube. Blogger is considered one of the top free blog sites but, unlike others, does not place ads on the blog without permission (WPbeginner, 2018). To ensure consistency across treatments, all backgrounds in the video and blog were black and white, and similar text fonts were used. The information and photos included were identical. However, the blog had static content that the user scrolls through, whereas the video
transitioned the information and had music. A sample blog stimulus is available here: 
https://abnerapparelresearch.blogspot.com/2017/12/a-better-t-shirt-pb.html. The video can be viewed here: https://www.youtube.com/watch?v=RrwN8Al4rAE&feature=youtu.be

**eWOM Comments**

Three sets of consumer comments were created to expose participants to eWOM about the ethical t-shirt. These comments were created based on: (a) the nine ethical apparel characteristics examined; and (b) previous research about online consumer reviews (Cheung et al., 2009; Kim et al., 2017; Moran & Muzellec, 2014). Cheung et al. (2009) evaluated the strength of consumer comments in terms of recommendation framing, recommendation sidedness, and argument strength. Recommendation framing is the extent to which the review is clearly positive or negative in content. Sidedness is whether the information in the review is only one-sided (only positive or only negative comments) or two-sided (includes both positive and negative comments) (Cheung et al., 2009).

Cheung et al. (2009) explained that argument strength was increased when a review included supporting information about the opinion. Argument strength was found to be one of the main factors in consumer’s perceived credibility of eWOM. Similarly, Moran and Muzellec (2014) concluded that more specific content in consumer reviews directly affected the credibility of the message. Therefore, comments were created to be framed clearly as one-sided (i.e., positive, negative, neutral) and included supporting information to increase argument strength.

Three sets of comments were created for the present study: (a) all positively framed, (b) all negatively framed, and (c) all neutrally framed for a control group (Table 3.1). Each set contained nine comments that were specifically developed for each of the nine ethical apparel characteristics. Supporting information about t-shirt quality, comfort, and durability were added.
to positive and negative comments to increase argument strength. Neutral comments were designed to include some information related to each of the nine ethical characteristics, but framed very vague and non-specific so that they did not affect consumer perception of the product. The comments were designed to be approximately of the same length, as review length can influence purchase probability (Kim et al., 2017). Participants were exposed to only one set of comments to increase their normative influence (Cheung et al., 2009; Lee et al., 2008; Moran & Muzellec, 2014).

Table 3.1 *Constructed eWOM consumer comments.*

<table>
<thead>
<tr>
<th>Positive Comments</th>
<th>Negative Comments</th>
<th>Neutral Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I love that this shirt is made from organic cotton, it is very durable and soft.</td>
<td>Organic cotton in this shirt makes it less durable and less soft.</td>
<td>What is cotton made from? Can anyone tell me</td>
</tr>
<tr>
<td>This shirt is so soft because of the recycled polyester. Feels good on your skin</td>
<td>Recycled polyester in this shirt makes it scratchy on the skin.</td>
<td>What is polyester? I don’t know exactly what it is.</td>
</tr>
<tr>
<td>I am so excited that people who made the shirt were paid fairly. I LOVE fair trade!</td>
<td>I don’t believe in fair trade, it’s bologna that people were paid more.</td>
<td>Not sure what fair trade means. Is the XS size available?</td>
</tr>
<tr>
<td>I feel good wearing a t-shirt that was made in an ethical factory where people are treated fairly.</td>
<td>As long as quality is good, I don’t care who and how made this t-shirt in which factory.</td>
<td>Looks like this t-shirt was imported. Do you know where it was made?</td>
</tr>
<tr>
<td>It’s great to support a company that donates money to a good cause.</td>
<td>How do I know that this company really donated money to charity? 1% isn’t very much anyway</td>
<td>Some people donate to charity at work but not everyone can.</td>
</tr>
<tr>
<td>I LOVE animals and never want to harm them. I’m so glad this company is cruelty free.</td>
<td>This is not made of fur or leather, why do they even talk about cruelty free?</td>
<td>This t-shirt is 50% cotton and 50% polyester. What does cruelty-free mean?</td>
</tr>
<tr>
<td>This shirt helps save water! We really need to conserve this precious resource!!</td>
<td>Earth is mostly covered with water, there’s no need to save it when making a t-shirt</td>
<td>I was taught to wash my clothes in cold water and dry them on low.</td>
</tr>
</tbody>
</table>
Table 3.1 continued

<table>
<thead>
<tr>
<th>Positive Comments</th>
<th>Negative Comments</th>
<th>Neutral Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like that this t-shirt was made with less energy. I try to reduce the energy I use at home too.</td>
<td>I don’t believe in climate change and all this stuff. It can’t take that much energy to make a t-shirt anyway</td>
<td>Energy—what kind did they use to make this shirt? Gas? Coal? Hydro? Wind? Sun?</td>
</tr>
<tr>
<td>I love that this shirt helps stop pollution.</td>
<td>How can a t-shirt help stop pollution? Really…?</td>
<td>Trash contributes to pollution.</td>
</tr>
</tbody>
</table>

To make the comments appear realistic, female volunteers were recruited to add the comments to the blog and video posts. Once the comments for each eWOM condition were added, the comment features were turned off on Blogger and YouTube, so no additional comments could be added. This is similar to the design used by Park and Lee (2009) in an experimental study that tested positive and negative consumer comments.

**Price Options**

To determine the high and low price points of the t-shirt for the stimuli, the cost of basic, traditionally produced t-shirts and ethical t-shirts in the market were evaluated. According to Rupp, Whitaker, Townsend, and Bhasin (2018), basic t-shirts from brands such as Uniqlo, Hanes, H&M, Gap, and Banana Republic can range in price from $3.90 to $35, while name-brand basic t-shirts range from $49.50 (Lacoste) to $327 (Faith Connexion). However, the majority of basic t-shirts are under $30 (Rupp et al., 2018).

According to individual company websites, ethically produced t-shirts can range in price from $12.99 to $168. For example, t-shirts from PACT that are 60% organic cotton and 40% recycled polyester sewn in a fair trade factory are $20 (PACT, n.d.). Fair Indigo offers fair trade, organic cotton t-shirts that are sewn ethically for $36.90 (Fair Indigo, n.d.). The Patagonia short sleeve “Responsibili-Tee” that is made from 100% recycled polyester and sewn in a fair trade
factory ranges in price from $35-$39 (Patagonia, 2018d). Options that are more expensive include Eileen Fisher ($68) and luxury cruelty free designer Stella McCartney ($168). Based on this evaluation, $20 and $40 price points were set for the ethical t-shirt described in the stimuli.

**Sample**

An all-female sample was used to control the gender variable. Previous research has found differences in gender and attitude towards purchasing ethical apparel, with female consumers being more favorable towards ethical apparel (Hwang et al., 2015; Hyllegard, Yan, Ogle & Lee, 2012). A sample of U.S. residents was used, because research about cruelty free apparel and influence of eWOM on ethical apparel is lacking for U.S. consumers who could be a large market for these products. Further, subjective norm was thought to have more influence in collectivistic cultures (e.g., Korea and China) as opposed to more individualistic cultures, such as the US (Han & Chung, 2014). Therefore, an all U.S. sample helped control this variable.

Scholars have criticized the use of convenience sampling of college students in research in general and, specifically, about ethical apparel (Reimers et al., 2016). In addition, the present study compared consumers from different generational cohorts. Therefore, the survey was distributed via Amazon Mechanical Turk (Mturk) to obtain a sample of female participants from across the United States that belong to different generational cohorts.

Mturk is one of the largest and most well-known crowdsourcing sites that can be used to gain a participant pool in exchange for payment ranging from $.01 to $1.00 (Paolacci, Chandler and Ipeirotis, 2010; Schmidt & Jettinghoff, 2016). Mturk users were found more likely to be female and ranged in age from 18 to 81 in a survey conducted by Paolacci et al. (2010). The authors also found that Mturk users reported higher education levels than the general population and are early adopters of technology. Casler, Bickel, and Hackett (2013) compared US samples
recruited via Mturk, social media, and a convenience sample of college students for a psychological research study. The authors found that the test results from Mturk were very similar to the other samples and the Mturk sample was more diverse in terms of ethnicity and age. The income level of Mturk users is somewhat lower than the average population (Casler et al., 2013; Paolacci et al., 2010).

While there has been criticism of the quality of a sample obtained using Mturk (Casler et al., 2013), it was deemed as an effective way to recruit a sample that could be generalized to the population (Casler et al., 2013; Paolacci et al., 2010). The demographic profile of Mturk users was a good fit for the present study. Further, Mturk allows restrictions to be set by the administrator (i.e., person requesting participants) regarding who can take on tasks (Schmidt & Jettinghoff, 2016).

A power analysis was conducted using the software G*Power to estimate the sample size needed for $\alpha=.05$ (error probability), $B=.20$ (power = .80), and effect size ($f$) of .25 (for a medium-sized sample) as recommended by Field (2013). The results of the test recommended a suggested minimum total sample size of 360 participants, or approximately 30 participants in each of the 12 stimulus conditions. However, similar studies have had larger samples ranging from 422 (Hwang at al., 2015) to 1,292 (Lee, 2014). Therefore, a target minimum sample size of 800, or 50 participants in each stimulus group and each generational cohort was determined.

**Instrument**

To measure importance of product characteristics, participant attitude towards purchase, and purchase intention of ethical apparel, a questionnaire was developed (Table 3.2 and Appendix B). The questionnaire consisted of six sections. The first section served as the media manipulation check. The second section measured the importance of ethical apparel
characteristics. The third section measured participant attitude towards purchasing the ethical apparel product described in the media. The fourth section measured participant purchase intention of ethical apparel. The fifth section served as a manipulation check for eWOM and an open-ended question to gain additional feedback about eWOM. The sixth section of the survey collected participant demographic information.

Table 3.2 Survey items.

<table>
<thead>
<tr>
<th>Media Manipulation Check</th>
<th>(1) Strongly Disagree to (7) Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent do you agree with the following statements about the media you just viewed?</td>
<td></td>
</tr>
<tr>
<td>- This post was animated.</td>
<td></td>
</tr>
<tr>
<td>- This post was interactive.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethical Product Characteristics</th>
<th>(1) Not important to (7) Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important is each of the following apparel characteristics to you?</td>
<td>adapted from Hwang et al. (2015)</td>
</tr>
<tr>
<td>- use of organic material</td>
<td></td>
</tr>
<tr>
<td>- use of recycled material</td>
<td></td>
</tr>
<tr>
<td>- fair trade</td>
<td></td>
</tr>
<tr>
<td>- safe working conditions</td>
<td></td>
</tr>
<tr>
<td>- cruelty free</td>
<td></td>
</tr>
<tr>
<td>- company’s donation to charity</td>
<td></td>
</tr>
<tr>
<td>- reduced water use</td>
<td></td>
</tr>
<tr>
<td>- reduced energy use</td>
<td></td>
</tr>
<tr>
<td>- reduced pollution</td>
<td></td>
</tr>
</tbody>
</table>

| Open-Ended | Are there any other characteristics that you look for when shopping for ethical apparel? |

<table>
<thead>
<tr>
<th>Attitudes Towards Purchasing Ethical Apparel</th>
<th>7 Point Semantic Differential Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think purchasing this t-shirt is</td>
<td></td>
</tr>
<tr>
<td>- Bad- Good</td>
<td>Ajzen and Fishbein (1980)</td>
</tr>
<tr>
<td>- Immoral- Moral</td>
<td></td>
</tr>
<tr>
<td>- Foolish-Wise</td>
<td></td>
</tr>
<tr>
<td>- Disappointing- Rewarding</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.2 continued

<table>
<thead>
<tr>
<th>Purchase Intention of Ethical Apparel</th>
<th>(1) Extremely Unlikely to (7) Extremely Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will consider buying ethical apparel.</td>
<td>Lee (2014) &amp; Ma et al. (2012)</td>
</tr>
<tr>
<td>I intend to buy ethical apparel in the future.</td>
<td></td>
</tr>
<tr>
<td>I will try to buy ethical apparel.</td>
<td></td>
</tr>
<tr>
<td>I would buy the shirt I just learned about for full price.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eWOM Manipulation Check</th>
<th>Multiple choice questions modified from Lee (2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- What type of consumer comments did you read?</td>
<td></td>
</tr>
<tr>
<td>Negative comments, positive comments, neither positive, nor negative comments</td>
<td></td>
</tr>
<tr>
<td>How carefully did you read the comments provided?</td>
<td></td>
</tr>
<tr>
<td>Not carefully, somewhat carefully, very carefully</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eWOM Open-Ended</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What, if any, comments, or parts of comments, were helpful for you?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Please choose the category that includes your current age.</td>
<td></td>
</tr>
<tr>
<td>- What is your ethnicity or ethical identity? (check all that apply)</td>
<td></td>
</tr>
<tr>
<td>- What is the highest level of education you have completed?</td>
<td></td>
</tr>
<tr>
<td>- What is your average household income? (in ranges)</td>
<td></td>
</tr>
<tr>
<td>- What state do you live in currently?</td>
<td></td>
</tr>
</tbody>
</table>

**Media manipulation check**

To test that the blog and video media were perceived to have different levels of interactivity and media richness, participants were asked how much they agree with two statements: (a) this post was animated, and (b) this post was interactive on 7-point Likert-type scale ranging from (1) *strongly disagree* to (7) *strongly agree*. These questions were modified from McMillan and Hwang (2002) to fit the research. (Table 3.2 and Appendix B).
Importance of Ethical Characteristics

Importance of ethical product characteristics was measured on a 7-point Likert-type scale ranging from (1) not important at all to (7) very important, similar to Hwang et al. (2015). An open-ended question was included for participants to list other characteristics they consider when shopping for ethical apparel that were not included in the study. This could uncover more information about consumer preferences for ethical apparel.

Attitude towards Purchase

Attitude towards purchase of ethical apparel was measured with a scale borrowed from Ajzen and Fishbein (1980). It consisted of four 7-point semantic differential items about purchasing the fashion product described. The anchors of the questions were: (a) Bad-Good, (b) Immoral-Moral, (c) Foolish-Wise, and (d) Disappointing-Rewarding. This scale is consistently used in TRA research to measure attitude towards purchase. Reported reliability of the scale was 0.92 (Ma et al., 2012) to 0.94 (Lee, 2014).

Purchase Intention

Purchase intention of ethical apparel was measured with three items modified from Ma et al. (2012) and Lee (2014). These were measured with a 7-point Likert-type scale ranging from (1) extremely unlikely to (7) extremely likely. Reported reliability of the scale was 0.92 (Ma et al., 2012) to 0.94 (Lee, 2014). An additional question was added to evaluate high and low price points. This was measured with a 7-point Likert-type scale ranging from (1) extremely unlikely to (7) extremely likely.

eWOM

To confirm differences in the eWOM conditions, a manipulation check was conducted. To ensure that participants perceived the framing of eWOM comments as positive, negative, or
neutral, participants were asked one multiple-choice question about the type of eWOM provided at the end of the survey. The choices were “positive comments, “negative comments” and “neither positive, nor negative comments”. This manipulation check was borrowed from Lee (2014) and modified to fit this research. To check the extent to which participants read the eWOM comments, they were asked one multiple-choice question about how carefully they read each comment. The choices were “not carefully”, “somewhat carefully”, and “very carefully.” An open-ended question was included about what comments, or parts of comments, were helpful to the participants. This provided further insight into the impact of eWOM and ethical apparel.

**Demographics**

Participant demographics were collected with five items. Age, ethnicity, education level, household income, and geographic location were included. This was used to determine whether the sample was representative of the US population (Table 3.2 and Appendix B).

**Questionnaire Pilot Test**

Prior to data collection, a pilot test was conducted that recreated the study without the use of Mturk. A convenience sample of 31 female participants ranging in age from 18-73 volunteered for the pilot test. The pilot study was testing: (a) the timing required to complete the stimuli; (b) the content of the video and blog for clarity; (c) the sidedness of the eWOM conditions, and (d) clarity of the questionnaire. Participants were timed while reading/watching an assigned stimuli condition to ensure that blog and video media took approximately the same time to view. An independent samples \( t \)-test revealed that there was no significant difference in the time (measured in seconds) it took to view the media and complete the survey between the video \( (M=1028.78, SD=852.67) \) and blog \( (M=760.82, SD=435.49) \) conditions; \( t(29)=-1.132, p = .267 \). Therefore, no adjustment to the video/blog content was made. Participants were also asked
for feedback on video transition speed and wording to make sure information was presented clearly. No problems were reported by the pilot participants.

The manipulation check to test eWOM sidedness was examined with frequency distributions. The positive comments were perceived as positive by 75% of the participants who viewed positive comments ($n=12$), while negative comments were perceived as negative by 67% of the participants who viewed them ($n=10$). The neutral comments were perceived as neutral by 11% of participants, positive by 67% of participants, and negative by 22% of participants ($n=9$). Therefore, the wording of the neutral comments was adjusted, so they would not be perceived as positive.

Participants completed the questionnaire after viewing the stimulus to make certain that the survey items were worded clearly and all links to video and blog posts worked properly. Participants in the pilot study did not report and confusion with wording and there were no problems with the questionnaire. However, one blog and one video hyperlink were not working correctly, so that issue was addressed before launching the survey. Instructions for how to get back to the questionnaire after viewing the media were also clarified based on participant feedback.

**Data Collection**

Prior to collecting data, the research was approved by the Institutional Review Board (IRB) at Iowa State University (See Appendix D). The stimuli, questionnaire, and informed consent were submitted for approval. Voluntary participation and confidentiality was assured.

To recruit participants, a request was submitted through Mturk with the parameters that workers were registered for Mturk in the United States. Clear instructions and expectations were provided with the request for participants that they should view the media and read the eWOM
comments before completing the survey. Workers were paid $.25 to participate in the study. Reports have found that 61% of tasks on Mturk pay $.10 or less, so this was considered an above-average amount (Pew Research Center, 2016). The initial request for 400 participants was submitted to Mturk and set to be open for seven days; however, the desired number of responses were collected within one day. A total of two requests were made to get the desired sample.

The Mturk request was linked to the Qualtrics survey where participants were informed of the purpose of the study, risks and benefits involved, procedure for participating in the study, and confidentiality (Appendix C). By clicking the link to continue to the survey, the participant consented to participate in the research. After two screening questions (i.e. gender and residency), the first question in the survey directed them to a hyperlink to one of the media conditions that included eWOM comments at the end. Qualtrics randomly assigned participants to each of the 12 stimulus conditions. The media was set to open in a separate computer window, so the participants could return to the survey after viewing the stimuli. Qualtrics generated a code to be entered into Mturk after completion of the survey for participants to receive compensation.

Data analysis

Responses missing more than 15% of the data were removed (Lee, 2014). The Statistical Package for the Social Sciences (SPSS) 24 was used to analyze the data. Descriptives of the sample were reported and compared to the U.S. population. Exploratory factor analysis and reliabilities were conducted for the research variables: attitude towards purchase and purchase intention. An exploratory factor analysis with Varimax rotation was conducted to determine factor loadings for each multi-item variable; items were retained if they loaded at .50 or higher (Field, 2013). Reliability was calculated for the multi-item variables using Cronbach’s alpha coefficient. The cut off above .70 was used as an acceptable level of internal consistency (Field, 2013).
Tests were conducted to confirm the manipulation checks for media type and eWOM. A t-test compared the means of the media type manipulation check to check for a significant difference between the video and blog groups. Frequencies were used to ensure that the eWOM information was perceived as anticipated by participants.

To ensure that the appropriate post-hoc test for multiple groups’ comparison was used, Levene’s test of homogeneity of variance was conducted for the variables of attitude towards purchase and purchase intention (Field, 2013). For variables that yielded a non-significant Levene’s test (i.e., acceptable), the Bonferroni post-hoc test was used to compare groups (Field, 2013). If variables yielded a significant Levene’s test (i.e., unacceptable), a different appropriate post-hoc test was conducted (Field, 2013).

To test hypothesis 1, regression analysis was conducted to determine how well attitude toward purchasing ethical apparel predicted purchase intention for the total sample. ANOVA were used to test hypotheses two through five. Significant F-tests for the two main effects confirmed differences among the eWOM, media type, and price groups. Post-hoc test determined significant differences between specific conditions.

To test hypothesis six, a 4 x 9 mixed ANOVA was conducted. The between subject factor was the four generational cohorts. The within subjects’ factor was the nine product characteristics. A significant F-test for interaction between cohort and characteristic supported the hypothesis. The post-hoc test determined significant differences between specific conditions.

Responses to open-ended questions about additional ethical characteristics participants looked for and helpfulness of eWOM comments were analyzed using word frequency and a content analysis (Wrench, Thomas-Maddox, Richmond, & McCroskey, 2016). Content clouds were created to highlight responses that were more frequent. This was suggested as an effective
way to explore qualitative data for environmental issues by Cidell (2010). The purpose of this analysis was to provide additional insight about eWOM comments and important ethical apparel characteristics that were not captured in the survey items.
CHAPTER 4. RESULTS

This study first created a systematic and comprehensive classification of ethical apparel characteristics. Then, an experimental study was conducted to examine the effects of three factors on consumer attitude towards purchase and intention to purchase ethical apparel products:

- electronic word-of-mouth (eWOM),
- media type to deliver information, and
- price.

In addition, ethical apparel characteristics that participants found important were evaluated across the four generational cohorts: Baby Boomers, Generation X, Millennials, and Generation Z. This chapter presents description of the sample, factor and reliability analysis, and results of manipulation checks. Next, results of hypotheses testing are presented. Finally, analysis of participant open-ended feedback about eWOM and ethical product characteristics is reported.

Research Sample

A request was made through Amazon Mechanical Turk (MTurk) for 900 Turk workers to participate in the study. This resulted in 1,127 total responses. Of these, 120 responses were removed due to participants not meeting demographic requirements of the study: (a) being a female, (b) U.S. resident, and (c) between 18 and 72 years of age. An additional 116 responses were removed because they were missing more than 15% of the data, which has been determined to severely influence results and statistical power of analysis (Kang, 2013; Lee, 2014). After these responses were removed, no other multi-item scale had missing data, with the exception of five participants who did not rate ethical characteristics. Therefore, no other adjustments were made to account for missing data. A sample of 891 usable responses were available for data analysis.
Description of Participants

The demographic profile of the sample is presented in Table 4.1. An all-female sample was obtained. The participants ranged in age from 18 to 72 and were divided into four generational cohorts. The highest number of participants (n=513, 58%) fell into the Millennial cohort, between 24 and 38 years old. The Generation X cohort had 204 participants, or 23% of the sample. Baby Boomers accounted for 95 of the participants, or 12%. Generation Z was the smallest group, with 79 participants (7%).

The age distribution of the sample was somewhat different from the age distribution of the total U.S. female population over 18 years old (Table 4.1). While there were almost three times fewer participants from the Generation Z cohort in the study, this is representative of the U.S. female population of Generation Z who are 18 and older. There were twice less Baby Boomers in the sample, but nearly three times more Millennials than in the total U.S. female population. The average age of the sample was 44.4 years old. It is expected that an MTurk sample will be younger, because MTurk workers are younger than the U.S. population with a median age of 30 (Ross, Zalvidar, Irani, & Tomlinson, 2010) compared to 39.4 in the U.S. population (U.S. Census Bureau, 2017c).
Table 4.1 Demographic characteristic of the sample in comparison with the U.S. population.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample Frequency</th>
<th>Sample Percent</th>
<th>U.S. Female Population (%)</th>
<th>U.S. Population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency a</td>
<td>Percent a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>891</td>
<td>100</td>
<td>50.8&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-23 (Gen Z)</td>
<td>79</td>
<td>8.9</td>
<td>6.5&lt;sup&gt;*&lt;/sup&gt;</td>
<td>26.5</td>
</tr>
<tr>
<td>24-38 (Millennial)</td>
<td>513</td>
<td>57.6</td>
<td>19.9</td>
<td>22.1</td>
</tr>
<tr>
<td>39-53 (Gen X)</td>
<td>204</td>
<td>22.9</td>
<td>19</td>
<td>20.2</td>
</tr>
<tr>
<td>54-72 (Baby Boomer)</td>
<td>95</td>
<td>10.7</td>
<td>22.7</td>
<td>22.6</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian or European</td>
<td>671</td>
<td>75.3</td>
<td>79.1</td>
<td>73.3</td>
</tr>
<tr>
<td>American</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>101</td>
<td>11.3</td>
<td>13.1</td>
<td>12.6</td>
</tr>
<tr>
<td>Asian America</td>
<td>65</td>
<td>7.3</td>
<td>5.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>4.2</td>
<td>n/a</td>
<td>4.8</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>14</td>
<td>1.6</td>
<td>1.7</td>
<td>.8</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>2</td>
<td>.2</td>
<td>.4</td>
<td>.2</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>33</td>
<td>3.7</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>$10,000 - $19,999</td>
<td>61</td>
<td>6.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$20,000 - $29,999</td>
<td>109</td>
<td>12.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$30,000 - $39,999</td>
<td>115</td>
<td>12.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$40,000 - $49,999</td>
<td>117</td>
<td>13.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50,000 - $59,999</td>
<td>104</td>
<td>11.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$60,000 - $69,999</td>
<td>76</td>
<td>8.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$70,000 - $79,999</td>
<td>72</td>
<td>8.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$80,000 - $89,999</td>
<td>47</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$90,000 - $99,999</td>
<td>49</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>68</td>
<td>7.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than $150,000</td>
<td>39</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>3</td>
<td>.3</td>
<td>10.4</td>
<td>11.0</td>
</tr>
<tr>
<td>High school</td>
<td>77</td>
<td>8.6</td>
<td>27.5</td>
<td>28.9</td>
</tr>
<tr>
<td>Some college</td>
<td>214</td>
<td>24</td>
<td>19.0</td>
<td>18.9</td>
</tr>
<tr>
<td>2-year degree</td>
<td>98</td>
<td>11</td>
<td>10.8</td>
<td>9.8</td>
</tr>
<tr>
<td>4-year degree</td>
<td>363</td>
<td>40.7</td>
<td>20.5</td>
<td>20.0</td>
</tr>
<tr>
<td>Professional degree</td>
<td>122</td>
<td>13.7</td>
<td>10.3</td>
<td>9.7</td>
</tr>
<tr>
<td>Doctorate</td>
<td>14</td>
<td>1.6</td>
<td>1.3</td>
<td>1.7</td>
</tr>
</tbody>
</table>
Table 4.1 continued

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample Frequency</th>
<th>Sample Percent</th>
<th>U.S. Female Population (%)</th>
<th>U.S. Population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Region of U.S.</td>
<td></td>
<td></td>
<td>N/A</td>
<td>h</td>
</tr>
<tr>
<td>Midwest</td>
<td>161</td>
<td>18.1</td>
<td></td>
<td>20.9</td>
</tr>
<tr>
<td>Northeast</td>
<td>148</td>
<td>16.6</td>
<td></td>
<td>17.3</td>
</tr>
<tr>
<td>South</td>
<td>367</td>
<td>41.2</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>West</td>
<td>180</td>
<td>20.2</td>
<td></td>
<td>23.8</td>
</tr>
<tr>
<td>Not Reported</td>
<td>35</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[a\] Some total frequency and percent values may not equal the sample size or 100% due to missing data.
\[b\] Estimated percentage of U.S. female population over age 18 (United States Census Bureau, 2017c)
\[c\] Population distribution in the U.S. by age cohort (Statista, 2018b)
\[d\] Ethnic distribution of U.S. female population over age 18 (United States Census Bureau, 2017d)
\[e\] 2012-2016 U.S. population estimates (United States Census Bureau, 2016)
\[f\] Educational attainment of U.S. female population 18 years and over, 2017 (United States Census Bureau, 2017a)
\[g\] Educational attainment of the population 18 years and over, 2017 (United States Census Bureau, 2017a)
\[h\] U.S. population by Region (United States Census Bureau, 2017b)

Most of the participants reported their ethnicity as Caucasian (75%), followed by African American (11%) and Asian American (7%) (Table 4.1). The ethnic distribution of the sample was similar to the distribution of the U.S. female population (U.S. Census Bureau, 2017c). The highest representation (49.9%) of the household income in the sample was between $20,000 and $59,000. The proportion of the sample with the income below $20,000 was 10.5%, and 27.4% of the sample reported household income $60,000-$99,000. A smaller percentage (7.6%) of the sample reported a household income between $100,000 and $150,000, and only 4.4% had a household income over $150,000. The average household income of the sample was $59,630. Figure 4.1 illustrates the reported household income of the sample in relationship to the U.S.
population (Statista, 2018a). Overall, the sample was skewed towards lower income levels than the U.S. population.

![Figure 4.1 Sample income compared to the U.S. household's average income.](image)

Source: Household income distribution in the United States (Statista, 2018a)

It is expected that a sample from MTurk has a slightly lower household income than the average population (Casler et al., 2013; Paolacci et al., 2010; Ross et al., 2010). It is important to note that the median real earnings of females who worked full-time, year-round in 2017 were $41,977, nearly $10,000 less than men (Fontenot et al., 2018). According to Fontenot et al. (2018), the median household income for female-led households in 2017 was also lower, ranging from $30,748 (non-family) to $41,703 (no husband present). While the sample has slightly lower income than the overall U.S. population, it could be more representative of the U.S. female population.

The sample was more educated than the U.S. female population (U.S. Census Bureau, 2017a), which is expected as MTurk users tend to have higher education levels than the general population (Paolacci et al., 2010; Ross et al., 2010). A majority (56%) of the sample reported a
four-year college degree or higher, compared to 32.1% of the U.S. female population. The sample had fewer participants with less than high school (.3%) and only high school (8.6%) education, which is lower than the U.S. female population, at 10.4% and 27.5% respectively. Many of the study participants were from the states in the Southern (41.2%) region of the United States, followed by the West (20.2%), Midwest (18.1%), and Northeast (16.6%) regions. This distribution is similar to the regional distribution of the total U.S. population (Table 4.1).

Overall, the demographics of the sample are somewhat different from the U.S. female population in terms of age (younger), income (lower), and education (higher); however, this should not be an issue for this study. Since price can be a major factor in ethical apparel consumption, somewhat lower income levels of the sample would be a plus for this study: if the price factor is not found to be critical for this research sample, it would hold true for more affluent consumers as well. The above average education level of the sample is in line with extant research that concluded that ethical consumptions is positively related to education (Boztepe, 2012).

**Participant Characteristics by Experimental Condition**

Participants were randomly assigned to one of the twelve experimental conditions by Qualtrics. For the two different media conditions, 432 participants viewed video and 459 participants viewed blog posts with the information about an ethically produced t-shirt. Positive eWOM comments were viewed by 303 participants, 290 read neutral comments, and 298 were exposed to negative comments. The high price condition was viewed by 450 participants, and low price was viewed by 441 participants. The distribution of participants by generation cohort and condition is presented in Table 4.2.
Table 4.2 *Generational cohort by experimental condition.*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total Sample ((n=891))</th>
<th>Generation Z ((n=79))</th>
<th>Millennial ((n=513))</th>
<th>Generation X ((n=204))</th>
<th>Baby Boomer ((n=95))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Media</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>432</td>
<td>38</td>
<td>257</td>
<td>82</td>
<td>56</td>
</tr>
<tr>
<td>Blog</td>
<td>459</td>
<td>41</td>
<td>256</td>
<td>122</td>
<td>39</td>
</tr>
<tr>
<td><strong>eWOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>303</td>
<td>23</td>
<td>170</td>
<td>71</td>
<td>39</td>
</tr>
<tr>
<td>Negative</td>
<td>298</td>
<td>34</td>
<td>173</td>
<td>63</td>
<td>28</td>
</tr>
<tr>
<td>Neutral</td>
<td>290</td>
<td>22</td>
<td>170</td>
<td>70</td>
<td>28</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>450</td>
<td>45</td>
<td>256</td>
<td>101</td>
<td>48</td>
</tr>
<tr>
<td>Low</td>
<td>441</td>
<td>34</td>
<td>257</td>
<td>103</td>
<td>47</td>
</tr>
</tbody>
</table>

**Factor and Reliability Analysis**

An exploratory factor analysis with Varimax rotation was conducted for the multi-item scales used to measure attitude towards purchase and purchase intention. Items with factor loadings over the acceptable level of .5 were retained (Field, 2013). Reliability was also calculated for the two multi-item scales. A Cronbach’s alpha of .70 was considered as the acceptable level of internal consistency (Field, 2013).

**Attitude towards Purchase**

Attitude towards purchasing ethical apparel was measured with four 7-point semantic differential items (Ajzen & Fishbein, 1980; Lee, 2014; Ma et al., 2012). All items had factor loadings over .5 and loaded onto one factor. The Eigenvalue was 3.15, accounting for 78.6% of variance. No other factors were identified. The Cronbach’s Alpha of the scale was \(\alpha = .91\). Table 4.3 includes the results of factor and reliability analysis, along with descriptive statistics (mean and standard deviation) for attitude towards purchasing ethical apparel.
Table 4.3 *Factor analysis and reliability for the attitude towards purchase scale.*

<table>
<thead>
<tr>
<th>Factor title and items</th>
<th>Mean</th>
<th>SD</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes towards purchasing ethical apparel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad (1) – Good (7)</td>
<td>6.05</td>
<td>1.17</td>
<td>.88</td>
</tr>
<tr>
<td>Immoral (1) – Moral (7)</td>
<td>6.07</td>
<td>1.14</td>
<td>.87</td>
</tr>
<tr>
<td>Foolish (1) – Wise (7)</td>
<td>5.79</td>
<td>1.27</td>
<td>.89</td>
</tr>
<tr>
<td>Disappointing (1) – Rewarding (7)</td>
<td>5.89</td>
<td>1.25</td>
<td>.89</td>
</tr>
</tbody>
</table>

Eigenvalue = 3.15  
Cronbach’s alpha = .91  
Total percent of variance explained = 78.6

**Purchase Intention**

Purchase intention of ethical apparel was measured with a Likert-type scale consisting of three 7-point items. All of the items had factor loadings over .5 and loaded onto one factor. The Eigenvalue of the scale was 2.52, accounting for 83.9% of variance. No other factors were identified. The Cronbach’s alpha of the scale was $\alpha = .90$, confirming the scale reliability. Table 4.4 includes the results of factor and reliability analysis, along with descriptive statistics (mean and standard deviation) for purchase intention scale items.

Table 4.4 *Factor analysis and reliability for the purchase intention scale.*

<table>
<thead>
<tr>
<th>Factor title and items</th>
<th>Mean</th>
<th>SD</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase intention of ethical apparel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will consider buying ethical apparel.</td>
<td>5.68</td>
<td>1.39</td>
<td>.89</td>
</tr>
<tr>
<td>I intend to buy ethical apparel in the future.</td>
<td>5.37</td>
<td>1.48</td>
<td>.93</td>
</tr>
<tr>
<td>I will try to buy ethical apparel.</td>
<td>5.54</td>
<td>1.44</td>
<td>.92</td>
</tr>
</tbody>
</table>

Eigenvalue = 2.52  
Cronbach’s alpha = .90  
Total percent of variance explained = 83.9
Manipulation Check

Two manipulation checks were completed: one for the difference between the two media types (blog vs. video) and another for the sidedness of eWOM (positive, neutral, and negative) constructed consumer comments. Results of manipulation checks are presented below.

Media Animation

The first manipulation question addressed the perceived animation of the media type viewed. Participants who viewed the video condition reported higher animation: 48.1% agreed that the medium was animated, compared to 30.3% of participants who viewed the blog posts. An independent samples t-test revealed that there was a significant difference between the two groups’ perception of media animation between the video (\(M=3.98, SD=1.97\)) and blog (\(M=3.14, SD=1.91\)) conditions; \(t(891) = -6.49, p < .001\) (Table 4.5). Therefore, the two media conditions were perceived as different in terms of animation.

Table 4.5 Summary of t-test analysis for media interactivity and animation.

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Video (a) Mean ((SD))</th>
<th>Blog (a) Mean ((SD))</th>
<th>(t)</th>
<th>(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animation</td>
<td>3.98 (1.97)</td>
<td>3.14 (1.91)</td>
<td>-6.49*</td>
<td>889</td>
</tr>
<tr>
<td>Interactivity</td>
<td>3.68 (1.92)</td>
<td>3.91 (1.97)</td>
<td>1.78</td>
<td>889</td>
</tr>
</tbody>
</table>

\(p < .001\)

\(a\) measured with a Likert-type scale from (1) strongly disagree to (7) strongly agree

Media Interactivity

The manipulation check for perceived media interactivity revealed that 41.4% of participants who viewed video agreed that the medium was interactive, compared to 47.8% of participants who viewed the blog. Therefore, the blog was perceived as interactive by more participants than the video. However, an independent samples t-test revealed that there was no significant difference between the video (\(M=3.68, SD=1.92\)) and blog condition (\(M=3.91, SD=1.91\)).
SD=1.97); \, t(891) = 1.78, \, p = .075. Therefore, both media, video and blog, were perceived to have the same interactivity (Table 4.5).

**Sidedness of eWOM**

One multiple-choice question was used to evaluate perception of the sidedness of comments as positive, negative, or neutral. Frequencies revealed that 88.4% of participants perceived the positively constructed eWOM comments as positive. Negatively constructed eWOM comments were perceived as negative by 58.1% of participants, and positive by 27.7%. Neutrally constructed comments were perceived as neutral by 57.2% and positive by 33.3% of participants.

**Hypotheses Testing**

The data were evaluated to ensure that it did not violate assumptions for regression and ANOVA statistical analyses (Field, 2013). To ensure that the data met assumptions for regression, the normal P-P plot revealed that the values were equally distributed and homogeneity of variance was acceptable. The Durbin-Watson test, which checks whether adjacent residuals are correlated, fell between one and three, at 1.97, indicating that the assumption of independent errors was not violated (Field, 2013). A histogram revealed a normal distribution of residuals and no outliers were found; therefore, the data met all assumptions for regression analysis.

For ANOVA, Levene’s test of homogeneity of variance was conducted to check if the research variables of attitude towards purchase and purchase intention had equal variance in eWOM conditions and care of reading groups. The results of Levene’s tests are reported below when the tests of the respective hypotheses are presented.
Relationship between Attitude towards Purchase and Purchase Intention

Hypothesis 1 proposed that attitude towards purchasing ethical apparel products is positively related to purchase intention of these products. The regression analysis for predicting purchase intention from the attitude towards purchase was significant, $F(1, 889) = 447.71, p < .001, R^2 = .335$ (Table 4.6). Therefore, hypothesis 1 was supported. Attitude accounted for 33.5% of variance in purchase intention.

Table 4.6 Regression analysis results for purchase intention.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>Sign.</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards purchase</td>
<td>.53</td>
<td>.03</td>
<td>.579</td>
<td>&lt;.001</td>
<td>.335</td>
</tr>
</tbody>
</table>

Effects of eWOM Type on Attitude and Purchase Intention

A series of one-way ANOVA were conducted to test hypotheses two through five. The Levene’s test for homogeneity of variance revealed that population variances were not equal between the three eWOM groups for the variables of attitude and purchase intention. Therefore, the data violated the assumption of equal variances. Thus, the Games-Howell post hoc test was used, as recommended by Field (2013), when the assumption of equal variances is violated.

Effect of eWOM type on attitude toward purchase

Hypotheses 2 proposed:

a) consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to neutral eWOM;

b) consumers exposed to neutral eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM;
c) consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.

A one-way ANOVA revealed a significant difference $F(2, 888) = 8.75, p < .001, \eta^2 = .02$ between the three groups exposed to different types of eWOM comments (Table 4.7). Games-Howell post hoc test revealed that attitudes of participants exposed to positive eWOM ($M=24.57$) were significantly higher than attitudes of participants exposed to neutral eWOM ($M=23.66; p = .016$) and negative eWOM ($M=23.14; p < .001$). Therefore, hypotheses 2a and 2c were supported. There was no significant difference between groups exposed to neutral ($M=23.66$) and negative ($M=23.14$) eWOM comments ($p = .321$). Thus, hypothesis 2b was not supported.

Table 4.7 Effect of eWOM type on attitude and purchase intention.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>eWOM Group</th>
<th>Mean (SD)</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards purchasing ethical apparel</td>
<td>Positive ($n=303$)</td>
<td>24.57 $^1$ (3.93)</td>
<td>8.75</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Neutral ($n=290$)</td>
<td>23.66 $^2$ (4.08)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative ($n=298$)</td>
<td>23.14 $^2$ (4.68)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention of ethical apparel</td>
<td>Positive ($n=303$)</td>
<td>17.13 $^a$ (3.25)</td>
<td>4.97</td>
<td>.007</td>
</tr>
<tr>
<td>Neutral ($n=290$)</td>
<td>16.47 $^{ab}$ (4.04)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative ($n=298$)</td>
<td>16.14 $^b$ (4.41)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^1, 2, a, b$ Different superscript letters/numbers indicate means that are significantly different from one another, $p < .05$

**Effect of eWOM type on purchase intention**

Hypotheses 3 proposed:

a) consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to neutral eWOM;
b) consumers exposed to *neutral* eWOM have higher purchase intention of ethical apparel products than consumers exposed to *negative* eWOM;

c) consumers exposed to *positive* eWOM have higher purchase intention of ethical apparel products than consumers exposed to *negative* eWOM.

A one-way ANOVA revealed a significant difference $F(2, 888) = 4.97, p = .007, \eta^2 = .01$ between the three groups exposed to different types of eWOM comments (Table 4.7). Games-Howell post hoc test uncovered that purchase intention of participants exposed to positive eWOM ($M=17.13$) was significantly higher than purchase intention of participants exposed to negative eWOM ($M=16.14; p = .006$). Therefore, hypothesis 3c was supported. There was no significant difference between purchase intention of participants exposed to positive ($M=17.13$) and neutral eWOM ($M=16.47; p = .123$) or neutral and negative eWOM ($M=16.14; p = .324$). Thus, hypotheses 3a and 3b were not supported.

**Effect of time reading eWOM on attitude and purchase intention**

A single multiple-choice question had participants rate how carefully they read the eWOM constructed comments by choosing one of the three options: (a) not carefully, (b) somewhat carefully, and (c) very carefully. One-way ANOVA tests were used to analyze differences in attitude towards purchase and purchase intention based on how carefully participants read the eWOM comments. The Levene’s test of homogeneity of variances was not significant for either independent variable (attitude and purchase intention), indicating that the population variance was equal among the groups. Therefore, the Bonferroni post hoc test was appropriate to evaluate differences.

The majority of participants (64.3%) reported that they read the comments very carefully, followed by 32.2% who reported reading somewhat carefully. Only 3.5% of participants reported
not reading the eWOM comments carefully. ANOVA test revealed a significant difference in attitude towards purchase $F(2, 888) = 14.46, p < .001, \eta^2 = .03$ and purchase intention $F(2, 888) = 6.81, p = .001, \eta^2 = .02$ based on how carefully participants read the eWOM (Table 4.8).

Table 4.8 Effect of taking time to read eWOM comments carefully on attitude and purchase intention.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Careful Reading Groups</th>
<th>Mean (SD)</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards purchasing ethical apparel</td>
<td>Not carefully (n=31)</td>
<td>21.74 (5.03)</td>
<td>14.46</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Somewhat carefully (n=287)</td>
<td>22.93 (4.13)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very carefully (n=573)</td>
<td>24.34 (4.21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention of ethical apparel</td>
<td>Not carefully (n=31)</td>
<td>15.00 (4.60)</td>
<td>6.81</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Somewhat carefully (n=287)</td>
<td>16.10 (3.63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very carefully (n=573)</td>
<td>16.92 (4.02)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^{1, 2, a, b}$ Different superscript letters/numbers indicate means that are significantly different from one another, $p < .05$

Bonferroni post hoc test uncovered that attitude of participants who read the eWOM comments very carefully ($M=24.34$) was significantly higher than attitude of participants who did not read them carefully ($M=21.74; p = .003$), and those who read somewhat carefully ($M=22.93; p < .001$). There was no significant difference in attitude between the two groups who read comments somewhat carefully ($M=22.93$) and not carefully ($M=21.74, p = .406$) (Table 4.8). Purchase intention of participants who read eWOM very carefully ($M=16.92$) was significantly higher than purchase intention of participants who did not read carefully ($M=15.00; p = .024$), and those who read somewhat carefully ($M=16.10; p = .012$). There was no significant difference in purchase intention between the two groups who read comments somewhat carefully ($M=16.10$) and not carefully ($M=15.00; p = .416$) (Table 4.8).
Effect of Media Type on Attitude and Purchase Intention

One-way ANOVA test was used to evaluate hypotheses 4a and 4b. Since there were only two media type groups, post hoc tests were not necessary. Hypothesis 4a proposed that consumers have higher attitude towards purchasing ethical apparel when exposed to information through video than participants exposed to the same information through blog. The ANOVA revealed that there was no significant difference $F(2, 888) = .963, p = .33, \eta^2 = .001$ in attitude towards purchase between the two groups exposed to the video ($M=23.94$) and blog ($M=23.66, p = .327$) conditions (Table 4.9). Therefore, hypothesis 4a was not supported.

Table 4.9 Effect of media type on attitude and purchase intention.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Media Type Group</th>
<th>Mean (SD)</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards purchasing ethical apparel</td>
<td>Blog (n=459)</td>
<td>23.66 (4.26)</td>
<td>.963</td>
<td>.327</td>
</tr>
<tr>
<td></td>
<td>Video (n=432)</td>
<td>23.94 (4.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention of ethical apparel</td>
<td>Blog (n=459)</td>
<td>16.49 (4.03)</td>
<td>.536</td>
<td>.464</td>
</tr>
<tr>
<td></td>
<td>Video (n=432)</td>
<td>16.68 (3.94)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 4b proposed that consumers have higher purchase intention of ethical apparel when exposed to information through video than participants exposed to the same information through blog. The results of ANOVA revealed that there was no significant difference $F(2, 888) = .563, p = .46, \eta^2 = .001$ in purchase intention between the two groups exposed to the video ($M=16.68$) and blog ($M=16.49, p = .464$) conditions (Table 4.9). Thus, hypothesis 4b was not supported.
Effect of Price on Attitude and Purchase Intention

One-way ANOVA test was used to evaluate hypotheses 5a and 5b in regards to effect of product price (high vs. low) on attitude and purchase intention. Since there were only two price groups, post hoc tests were not necessary. Hypothesis 5a proposed that when the product price is low, attitude towards purchase is higher than when product price is high. ANOVA results revealed that there was no significant difference $F(2, 888) = .59, p = .44, \eta^2 = .001$ in attitude towards purchase in the two groups exposed to the high ($M=23.70$) and low ($M=23.90, p = .443$) price points (Table 4.10).

Table 4.10 Effect of price on attitude and purchase intention.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Price Group</th>
<th>Mean (SD)</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards purchasing ethical apparel</td>
<td>High ($n=450$)</td>
<td>23.70 (4.29)</td>
<td>.588</td>
<td>.443</td>
</tr>
<tr>
<td></td>
<td>Low ($n=441$)</td>
<td>23.90 (4.26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention of ethical apparel</td>
<td>High ($n=450$)</td>
<td>16.52 (3.73)</td>
<td>.277</td>
<td>.599</td>
</tr>
<tr>
<td></td>
<td>Low ($n=441$)</td>
<td>16.65 (4.15)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 5b proposed that when the product price is low, purchase intention is higher than when price is high. ANOVA revealed that there was no significant difference $F(2, 888) = .28, p = .60, \eta^2 < .001$ in purchase intention between the two groups exposed to the high ($M=16.52$) vs. low ($M=16.65, p = .599$) price options (Table 4.10). Thus, hypotheses 5a and 5b were not supported. There were no interaction effects between the variables of eWOM, media type, or price.

Figure 4.2 illustrates the effects of eWOM, media type, and price on attitude towards purchase and purchase intention of ethical apparel (hypotheses 1-5). The mean for each variable is given and significantly higher attitudes and purchase intention are indicated with solid lines,
while non-significant effects are indicated with dotted lines. Overall, positive eWOM resulted in higher attitude and purchase intention of ethical products, but neutral and negative did not. Media type and price did result in significantly higher or lower attitude or purchase intention.

Figure 4.2 Effects of eWOM, media type, and price on attitude and purchase intention.

Note: ** p < .01, *** p < .001

To further analyze the effect of price on purchase intention, participants were asked to rate the statement, “I would buy the t-shirt I just learned about for full price.” on a 7-point Likert-type scale from (1) Strongly disagree to (7) Strongly Agree. The two groups exposed to the high price and low price conditions were compared using an independent samples t-test. The result revealed that participants exposed to low price (\(M=4.97, SD=1.80\)) were significantly more likely to pay full price for the t-shirt than participants exposed to the high price (\(M=4.32, SD=1.97\)) conditions; \(t(889) = -5.10, p < .001\). Therefore, participants were more likely to buy the t-shirt
for full price when the price was low ($20.00) than when the price of the same t-shirt was high ($40.00).

**Generation Groups and Ethical Product Characteristics**

Hypothesis 6 proposed that generational cohorts differ in ethical apparel characteristics they find important. All participants in the study were asked to rate nine ethical product characteristics explained in the media (video or blog) using a 7-point Likert-type scale ranging from (1) *not important at all* to (7) *very important*. To test this hypothesis, a 4 x 9 mixed ANOVA was conducted. The between subjects’ factor was the four generational cohorts (Generation Z, Millennials, Generation X, and Baby Boomers; see Table 4.1). The within subjects’ factor was the nine ethical product characteristics of the t-shirt presented in the media: organic content, recycled content, fair trade, safe working conditions, cruelty free, donations to charity, reduced water use, reduced energy use and reduced pollution (see Table 2.1).

Preliminary analysis was done to ensure that the data met all assumptions for a mixed ANOVA. Box’s test of equality of covariance was significant, so the generation group variable violated the assumption of equality of covariance; however, each group size was over 30 making the sample robust against violations of homogeneity of variance-covariance (Ghasemi & Zahediasl, 2012). Mauchly’s test of Sphericity was significant, indicating a difference in covariance among ethical characteristics $\chi^2(35) = 1156.35, p < .000$; therefore, the data violated the assumption that correlations between ethical characteristics should be random. Thus, the Huyhn-Feldt corrected $F$-test results were reported for the within subject’s effect of ethical characteristics (Field, 2013; Lund Research, 2018; McCall & Appelbaum, 1973). Levene’s test of homogeneity of variance revealed that population variance was equal among ethical
characteristics; therefore, the Bonferroni post hoc analysis was appropriate (Field, 2013). Results of the mixed ANOVA revealed that:

- there was a significant overall difference in ethical apparel characteristics participants found important \( F(6.29, 882) = 67.48, p < .001, \eta^2_p = .071, \) and

- a significant overall difference in the between subjects’ effect of generation group \( F(3, 882) = 4.50, p = .004, \eta^2_p = .015. \)

Details about the differences in each variable are provided below.

**Importance of ethical product characteristics**

Table 4.11 describes the mean differences for the importance of ethical product characteristics for the entire sample \((n = 886)\), and indicates characteristics that are statistically different from each other according to the Bonferroni post hoc results. In terms of overall ethical characteristics that participants found important, safe working conditions \((M=5.90)\) was the most important, and was significantly different from all of the other seven characteristics, except cruelty free. Cruelty free was the second most important characteristic \((M=5.74)\), and was significantly different from the other six characteristics, except safe working conditions \((M=5.90)\) and reduced pollution \((M=5.67)\). Reduced pollution was the third most important characteristic, and was statistically different from the other six characteristics, with the exception of cruelty free \((M=5.74)\) and fair trade \((M=5.51)\). Fair trade was the fourth most important characteristic \((M=5.51)\), and was statistically different from the other six characteristics, except reduced pollution \((M=5.67)\) and reduced energy \((M=5.38)\). Reduced energy was the fifth most important characteristic \((M=5.38)\), and was statistically different from all others, except fair trade \((M=5.51)\), reduced water use \((M=5.32)\), and recycled material \((M=5.26)\).
<table>
<thead>
<tr>
<th>Ethical Characteristic</th>
<th>Mean Difference Between Ethical Characteristics (n = 886)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Safe working conditions (1)</td>
<td>.164</td>
</tr>
<tr>
<td>Cruelty free (2)</td>
<td>-.164</td>
</tr>
<tr>
<td>Reduced pollution (3)</td>
<td>-.277*</td>
</tr>
<tr>
<td>Fair trade (4)</td>
<td>-.410*</td>
</tr>
<tr>
<td>Reduced energy (5)</td>
<td>-.556*</td>
</tr>
<tr>
<td>Reduced water use (6)</td>
<td>-.619*</td>
</tr>
<tr>
<td>Recycled material (7)</td>
<td>-.717*</td>
</tr>
<tr>
<td>Organic material (8)</td>
<td>-.867*</td>
</tr>
<tr>
<td>Donations to charity (9)</td>
<td>-1.119*</td>
</tr>
</tbody>
</table>

*Mean difference is significant at the .05 level or less
Reduced water use ($M=5.32$) was the sixth ranked ethical characteristic, and was statistically different from all six others, except reduced energy ($M=5.38$) and recycled material ($M=5.26$). The seventh ranked ethical characteristic was recycled material ($M=5.26$), and it was statistically different from all others, except reduced energy ($M=5.38$), reduced water use ($M=5.32$), and organic material ($M=5.06$). Organic material was the eight-ranked characteristic, and was statistically different from all seven others, except recycled material ($M=5.26$). Donation to charity ($M=4.87$) was the least important ethical characteristic, and was statistically different from all other eight characteristics (Table 4.11).

**Differences in generation groups**

Table 4.12 summarizes the descriptive statistics of the importance of each ethical product characteristic (listed in order from most important to least) for each generation group. Bonferroni post hoc test revealed significant differences in the importance of ethical characteristics for different generation groups (indicated with different superscripts in Table 4.12). For the characteristic of safe working conditions, Baby Boomers ($M=6.31$) viewed it as more important ($p = .007$) than Millennials ($M=5.82$). Similarly, Baby Boomers ($M=6.12$) placed higher importance ($p = .044$) on cruelty free in apparel than Millennials ($M=5.66$) did. For the reduced pollution characteristic, there was no significant difference among the four generation groups. Baby Boomers ($M=6.02$) rated the fair trade characteristic higher than both Generation X ($M=5.40$, $p = .005$) and Millennial ($M=5.46$, $p = .005$) participants.
Table 4.12 *Descriptive statistics for product characteristic importance by generation group.*

<table>
<thead>
<tr>
<th>Product Characteristic</th>
<th>Generation Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe working conditions</td>
<td>Baby Boomer</td>
<td>6.31</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.89</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.82</td>
<td>1.35</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>6.00</td>
<td>1.27</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.90</strong></td>
<td><strong>1.35</strong></td>
</tr>
<tr>
<td>Cruelty free</td>
<td>Baby Boomer</td>
<td>6.12</td>
<td>1.38</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.76</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.66</td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.82</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.74</strong></td>
<td><strong>1.54</strong></td>
</tr>
<tr>
<td>Reduced pollution</td>
<td>Baby Boomer</td>
<td>6.03</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.62</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.63</td>
<td>1.42</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.62</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.67</strong></td>
<td><strong>1.42</strong></td>
</tr>
<tr>
<td>Fair trade</td>
<td>Baby Boomer</td>
<td>6.02</td>
<td>1.27</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.40</td>
<td>1.57</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.46</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.49</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.51</strong></td>
<td><strong>1.49</strong></td>
</tr>
<tr>
<td>Reduced energy</td>
<td>Baby Boomer</td>
<td>5.80</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.29</td>
<td>1.59</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.33</td>
<td>1.47</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.37</td>
<td>1.48</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.38</strong></td>
<td><strong>1.47</strong></td>
</tr>
<tr>
<td>Reduced water use</td>
<td>Baby Boomer</td>
<td>5.71</td>
<td>1.92</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.12</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.32</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.39</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.32</strong></td>
<td><strong>1.47</strong></td>
</tr>
<tr>
<td>Recycled material</td>
<td>Baby Boomer</td>
<td>5.66</td>
<td>1.39</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.08</td>
<td>1.68</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.27</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.14</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.26</strong></td>
<td><strong>1.56</strong></td>
</tr>
<tr>
<td>Organic material</td>
<td>Baby Boomer</td>
<td>5.66</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>4.84</td>
<td>1.69</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.05</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.00</td>
<td>1.59</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.06</strong></td>
<td><strong>1.59</strong></td>
</tr>
</tbody>
</table>
Table 4.12 continued

<table>
<thead>
<tr>
<th>Product Characteristic</th>
<th>Generation Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations to charity</td>
<td>Baby Boomer</td>
<td>5.10</td>
<td>1.60</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>4.70</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>4.91</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>4.84</td>
<td>1.74</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>4.87</strong></td>
<td><strong>1.67</strong></td>
</tr>
<tr>
<td>Total mean across all nine ethical characteristics</td>
<td>Baby Boomer</td>
<td>5.82&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.122</td>
</tr>
<tr>
<td></td>
<td>Generation X</td>
<td>5.30&lt;sup&gt;fu&lt;/sup&gt;</td>
<td>.083</td>
</tr>
<tr>
<td></td>
<td>Millennial</td>
<td>5.38&lt;sup&gt;ut&lt;/sup&gt;</td>
<td>.133</td>
</tr>
<tr>
<td></td>
<td>Generation Z</td>
<td>5.41</td>
<td>.052</td>
</tr>
<tr>
<td></td>
<td><strong>Overall Mean</strong></td>
<td><strong>5.48</strong></td>
<td>.051</td>
</tr>
</tbody>
</table>

As far as reduced energy use, Baby Boomers (M=5.80) were significantly different from Generation X (M=5.29, p = .036) and Millennials (M=5.33, p = .031). Baby Boomers (M=5.71) placed higher importance (p = .007) on reduced water use in comparison with Generation X participants (M=5.12). The same was the case for recycled material: Baby Boomers (M=5.66) viewed it as more important (p = .019) than the Generation X group (M=5.08). Baby Boomers (M=5.66) rated the use of organic material in apparel more important than the three other groups: Generation X (M=4.84, p < .001), Millennials (M=5.05, p = .003), and Generation Z (M=5.00, p = .037). There was no significant difference among the four generation groups on importance of donations to charity.

Bonferroni post hoc analysis of the overall differences in means across all the nine ethical product characteristics among the four generation groups revealed a significant difference in overall means between the following groups:

- Baby Boomers (M=5.82) and Generation X (M=5.30; p = .003), and
- Baby Boomers (M=5.82) and Millennials (M=5.38; p = .005).
There were no other significant differences among other generation groups across all the nine ethical product characteristic ratings. Figure 4.2 illustrates the overall ratings of the ethical product characteristics among the four generation groups.

The Huyhn-Feldt corrected $F$-test revealed that the interaction effect among the four generation groups and the nine product characteristics was not significant $F(18.79, 882) = 1.30, p = .170$. There were overall differences in ethical product characteristics that were important to participants and among generation groups (Figure 4.2). However, there was no significant interaction effect between generation group and ethical product characteristic; therefore, hypothesis 6 was partially supported.

Overall, the most important ethical apparel characteristics for the entire sample were safe working conditions, cruelty free, reduced pollution, and fair trade. The least important ethical apparel characteristic was donation to charity. Baby Boomers rated all ethical characteristics higher than the other three groups. Generation X and Millennial’s rated most of the characteristics lower than other groups. Baby Boomers were significantly different overall from Generation X and Millennials, but not significantly different from Generation Z. No other generation groups were significantly different from each other.
Figure 4.3 Rating of the importance of ethical characteristic by the four generation groups.
Summary of Hypotheses Tests

A summary of the results from hypotheses testing is presented in Table 4.13. The discussion and implications of these results are presented in Chapter 5.

Table 4.13 Summary of hypotheses results.

<table>
<thead>
<tr>
<th>Number</th>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Attitude towards purchasing ethical apparel products is positively related to purchase intention of these products.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to neutral eWOM.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b</td>
<td>Consumers exposed to neutral eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H2c</td>
<td>Consumers exposed to positive eWOM have higher attitude towards purchasing ethical apparel products than consumers exposed to negative eWOM.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to neutral eWOM.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3b</td>
<td>Consumers exposed to neutral eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3c</td>
<td>Consumers exposed to positive eWOM have higher purchase intention of ethical apparel products than consumers exposed to negative eWOM.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>Consumers have higher attitude towards purchasing ethical apparel when exposed to information through video than consumers exposed to the same information through blog.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H4b</td>
<td>Consumers have higher purchase intention of ethical apparel when exposed to information through video than consumers exposed to the same information through blog.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5a</td>
<td>When product price is low, attitude towards purchase is higher than when price is high.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5b</td>
<td>When product price is low, purchase intention is higher than when price is high.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6</td>
<td>Generational cohorts differ in ethical apparel characteristics they find important.</td>
<td>Partially supported</td>
</tr>
</tbody>
</table>
Analysis of Open-Ended Responses

Two open-ended questions were included in the questionnaire to gain additional insights about eWOM comments and ethical apparel characteristics not captured by the survey items. Content analysis was used to evaluate participant feedback (Wrench et al., 2016). Frequencies of the same words were calculated. Similar ideas and phrases were grouped into categories. The categories were then grouped into themes for each of the two questions (Creswell, 2015). Finally, content clouds were created with software at wordclouds.com. The content clouds provide a valuable visual summary of qualitative data (Cidell, 2010).

Helpfulness of eWOM

The first open-ended question asked participants about eWOM helpfulness: “What, if any, comments or parts of comments were helpful for you?” For the analysis, participant responses were separated based on the type of eWOM (positive, neutral, or negative) that was viewed. Separating participant feedback by the eWOM type gave more insights into how the sidedness of eWOM effected its perceived helpfulness.

For the most part, participant feedback was very brief, from one or two words to short phrases. The feedback contained descriptions of the eWOM comments (e.g., positive or negative), general characteristics of the t-shirt (texture, quality, etc.), and/or its ethical characteristics that were perceived as helpful. Analysis of participant feedback revealed three main themes for each type of eWOM:

(a) eWOM characteristics,
(b) general t-shirt characteristics, and
(c) ethical characteristics of the t-shirt.

Positive eWOM participant feedback
Of the 303 participants who viewed positive constructed eWOM comments, 198 (65%) provided short-answer responses. Of this number, 39 participants (20%) noted that the eWOM was not helpful. An additional 21 responses contained only one word, such as “nice” or “good.” These responses were not included in the analysis because they did not provide meaningful information. The remaining 138 responses were used for the data analysis that resulted in the three themes. Figure 4.3 presents the content cloud created with the participant feedback about positive eWOM, where larger words represent higher frequency of responses.

Figure 4.4 Content cloud of participant feedback about positive eWOM.
**Characteristics of positive eWOM**

In total, 56 participants (41%) mentioned general characteristics of the positive eWOM as helpful. Twenty-seven participants (20%) mentioned that the positive\(^1\) tone of the eWOM was helpful (Figure 4.3). Twenty-three participants (17%) believed that eWOM described positive attributes of the product. A Millennial participant stated, “They all just reinforced the positive points about the shirt, so it made me remember them better and why it is a good idea to buy the shirt.” Six participants found it helpful that the eWOM comments were from people who purchased the t-shirt (4%) and were “excited” or “satisfied” with the product (1%). A Millennial participant noted, “They were not just commenting on the ideas behind the shirt, but having actual experience with the product.”

**General t-shirt characteristics**

The second theme described general characteristics of the t-shirt (not related to ethical characteristics). Specifically, t-shirt comfort and quality were mentioned (Figure 4.3). Twenty-five participants (18%) agreed that the eWOM comment about the “softness” of the t-shirt was helpful. Thirteen other participants (9%) referred to texture, using words like “feel” and “comfortable.” A Generation X participant stated, “I appreciated the comments referring to how the t-shirt felt on the skin. I wondered if it would be comfortable.” Ten participants (7%) indicated the comments that described quality were helpful, mentioning materials and durability of the t-shirt.

---

\(^1\) Here and below words in italics represent the attributes from the content clouds (Figure 4.4, 4.5, 4.6, 4.7)
**Ethical t-shirt characteristics**

The third theme described ethical characteristics of the t-shirt mentioned in the eWOM that participants found to be helpful. A Generation X participant noted, “It is good to see which particulars of the ethical t-shirt appeal to other people. Which ones they felt were most important.” Thirty-eight participants (28%) indicated the eWOM comments that described various environmental characteristics of the t-shirt were helpful (Figure 4.3). Specific environmental characteristics included: reduced water \( (n=20, 14\%) \), recycled polyester \( (n=5, 4\%) \), organic cotton \( (n=5, 4\%) \), reduced pollution \( (n=4, 3\%) \), and reduced energy \( (n=4, 3\%) \).

Ten participants (7%) mentioned eWOM related to human welfare, specifically mentioning fair trade and worker treatment. The eWOM comments that mentioned cruelty free \( (n=7, 5\%) \) and “donations to charity” \( (n=7, 5\%) \) were helpful to participants. Six participants (4%) gave feedback that it was helpful that the eWOM described how the t-shirt was produced by an ethical company. A Millennial participant stated, “They (eWOM comments) described the company well. They talked about how ethical they were.”

Overall, characteristics of the eWOM, including the positive tone and descriptions of positive product attributes were mentioned in 41% of the feedback as helpful aspects of the eWOM. Ethical characteristics of the t-shirt and the company that were reinforced in the positive eWOM were also cited as helpful in 38% of the participant feedback. In addition, the eWOM that confirmed general t-shirt characteristics, such as comfort and quality, were referred to in 28% of participant feedback. Participants perceived that the comments included personal experiences of people who had purchased the t-shirt, which verified that it was a good product. A statement from a Millennial participant echoed the positive descriptions of comfort and the
environment with the following statement: “The comment about the softness on your skin of the t-shirt. Not only is it good for the environment, but it feels comfortable while you wear it too.”

Neutral eWOM participant feedback

Of the 290 participants who viewed neutral comments, 199 (69%) provided short-answer feedback. Many participants \( (n=103, 52\%) \) did not perceive the eWOM as helpful. Participants who simply stated “none” were excluded from further analysis \( (n=55) \), because they did not provide additional information. Twenty-seven additional responses were removed because they were one-word comments such as “no” or “good” that did not provide meaningful feedback. The remaining 117 responses were used for data analysis, forming the three themes described below. Figure 4.4 presents the content cloud created with participant feedback about neutral eWOM, where larger words represent higher frequency of responses.

![Content cloud of participant feedback about neutral eWOM](image)

Figure 4.5 Content cloud of participant feedback about neutral eWOM

\(^2\) Due to limitations of the wordcloud software, size of words do not accurately represent frequencies in this content cloud.
**Characteristics of neutral eWOM**

Participants did not find the neutral eWOM helpful because many of the constructed comments were presented in the form of questions (n=53, 45%) (Figure 4.4). A Millennial participant stated, “None of them (were helpful). They were mostly simple questions answered in the article or through an easy Google search.” Few participants gave additional feedback about the neutral eWOM, although four (3%) thought the people providing eWOM were “confused” and two (2%) perceived the comments were “irrelevant.”

**General t-shirt characteristics**

After viewing neutral eWOM, participants did not mention many general characteristics of the t-shirt. One constructed eWOM comment questioned the country of origin of the t-shirt (see Table 3.1); this was mentioned as helpful by eight (7%) participants (Figure 4.4). Two (2%) participants mentioned the eWOM comment about washing instructions of the t-shirt as helpful. A Millennial participant stated, “This comment was most helpful, ‘I was taught to wash my clothes in cold water and dry them on low.’ I thought so because it gives advice on everyday matters.” Only one participant mentioned texture or “feel” of the shirt (<1%).

**Ethical t-shirt characteristics**

Twenty-seven participants (23%) cited ethical characteristics of the shirt mentioned in the neutral eWOM as helpful. The eWOM that questioned the type of energy used to create the shirt was mentioned by nine participants (8%). A Baby Boomer participant stated, “Not much (was helpful), the comments were primarily asking questions and with the exception of the question asking for clarification of the type of energy used to make the shirts, were not though provoking or enlightening.” Participants also noted comments that addressed cruelty free (n=7, 6%) and worker safety (n=2, 2%) as helpful (Figure 4.4). “Polyester” (n=7, 6%) and “cotton” (n=5, 4%)
materials were mentioned, but no additional details were given about these ethical characteristics regarding how or why the information was helpful.

Overall, the neutral eWOM was not perceived as helpful. General characteristics of the eWOM were mentioned in 84% of responses, but related to the vague nature of the eWOM that was not helpful. Ethical t-shirt characteristics in the eWOM were mentioned in 23% of the participant feedback, but little detail was given as to why eWOM with this content was helpful. General t-shirt characteristics mentioned in the eWOM were only cited in 10% of the participant feedback. The neutral eWOM was designed to be vague, so it was not perceived as positive or negative. The lack of detailed response about parts of the comments that were helpful echoed the vague traits of the constructed eWOM provided.

**Negative eWOM participant feedback**

Of the 298 participants who viewed negative constructed eWOM comments, 221 (74%) provided open-ended responses. Of this number, 86 participants (39%) stated that “none” of the eWOM was helpful. An additional 28 responses were removed because they contained only one word, such as “nice” or did not relate to the question. The remaining 107 responses were used for the data analysis that related to the three themes. Figure 4.5 is the content cloud for the negative feedback, where larger words were more frequently mentioned.
Characteristics of negative eWOM

Little additional information was provided about the first theme of general characteristics of the eWOM. Twenty participants stated that the eWOM as not helpful based on the negative tone of the comments (19%). Other participants \( n=13,12\% \) used negative words to describe the eWOM including “ignorant”, “rude”, “uninformed” and “ranting” (Figure 4.5). A Millennial participant stated, “None of those comments were helpful to me because the people seemed very uninformed about ethical clothing.” Another Millennial participant noted, “…they were all negative and questioning whether or not the shirt was actually ethical apparel.” Eight other participants (7%) described the people who wrote the eWOM as “skeptical” about the ethics of the t-shirt.
General t-shirt characteristics

General t-shirt characteristics mentioned in the participant feedback were related to texture, comfort, and quality. They were mostly related to two of the constructed eWOM comments (see Table 3.1) that described negative aspects of the materials used. One stated, “Organic cotton in this shirt makes it less durable and less soft.” The second stated, “Recycled polyester in this shirt makes it scratchy on the skin”. These eWOM were helpful to participants, as 45 (42%) mentioned descriptions of materials and texture, including the words “scratchy”, “feel”, and “comfort”. Other participants (n=15, 14%) mentioned negative descriptions of quality and durability as helpful (Figure 4.5). A Generation X participant noted that the negative eWOM emphasized, “That the quality of the shirt wasn't as great as the message behind the shirt.”

Ethical t-shirt characteristics

Most of the participant feedback related to ethical characteristics had to do with a specific constructed comment that questioned the amount of money donated to charity (see Table 3.1). Ten participants (9%) specifically mentioned the donation amount to charity, because it made them think about how much was actually being donated to charity (Figure 4.5). A Generation X participant stated, “The comment regarding - How do I know that this company really donated money to charity? (was helpful). We all want to know where our money is going when we purchase items that say this.” Cruelty free (n=5, 5%) and fair trade (n=1, <1%) ethical characteristics within the eWOM were mentioned by participants, but no additional details were provided about these topics in the feedback.

The negative eWOM was not perceived as helpful by the majority of participants. Feedback related to characteristics of the negative eWOM was mentioned in 47% of the responses. This feedback gave details about why the negative eWOM was not helpful to
participants or implied that the participants disagreed with the constructed eWOM comments. A Millennial participant said, “none (of the comments were helpful) – I did not agree with what was being said in the comments.” Another Millennial participant even stated, “None (were helpful), they all seemed to be made by climate change deniers.”

General characteristics of the t-shirt were cited in 39% of the participant feedback. Negative eWOM about the materials used in the t-shirt causing it to be uncomfortable or low quality were perceived as helpful to participants when deciding if the t-shirt was a good product. The eWOM about specific ethical characteristics of the t-shirt was mentioned in 28% of the participant feedback. The negative statements made in the eWOM caused the participants to consider the claims presented about the t-shirt in the media and question the ethics of the product. A Millennial participant stated, “…the negative one’s (comments). It gave me initiative to further research.”

**Comparison of eWOM Helpfulness**

To compare helpfulness of the three types of eWOM, it is important to consider the content of the constructed eWOM provided to participants (see Table 3.1 and Table 4.14), as the product and ethical characteristics mentioned in the eWOM were reflected in participant feedback. Nine constructed comments were developed for each type of eWOM (positive, neutral, and negative), resulting in three separate sets of comments. Within the respective comment sets, one comment individually addressed each of the nine ethical characteristics. Additionally, in the comment sets for positive and negative eWOM, two comments discussed comfort and one comment referred to durability. In the neutral eWOM set, no comments mentioned comfort or durability (Table 4.14). The eWOM content provided to participants was reflected in their feedback about helpful aspects of eWOM. Table
4.14 Summary of participant feedback about eWOM in relation to information provided in eWOM.

<table>
<thead>
<tr>
<th>eWOM Type*</th>
<th>eWOM Characteristics</th>
<th>Ethical Characteristics</th>
<th>T-shirt Characteristics</th>
<th>eWOM tone</th>
<th>eWOM content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>41%</td>
<td>38%</td>
<td>28%</td>
<td>9/9</td>
<td>2/9 comfort 1/9 quality</td>
</tr>
<tr>
<td>n=303</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>47%</td>
<td>28%</td>
<td>39%</td>
<td>9/9</td>
<td>2/9 comfort 1/9 quality</td>
</tr>
<tr>
<td>n=298</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>84%</td>
<td>23%</td>
<td>10%</td>
<td>9/9</td>
<td>0/9</td>
</tr>
<tr>
<td>n=290</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *percentages do not equal 100%, because many participant responses mentioned multiple aspects of eWOM that was helpful.

Based on participant open-ended feedback, the positive eWOM was perceived as helpful by more participants (77%), followed by negative (46%), then neutral (16%). Participants found the positive tone (41%) that reinforced positive ethical characteristics (38%) and gave additional details about quality and texture (28%) as helpful aspects of positive eWOM. Many participants had an unfavorable reaction to the negative tone of negative eWOM (47%), and did not perceive it as helpful, overall. The constructed negative eWOM comments caused some participants (28%) to question the information about the product. Descriptions of poor quality and texture (39%) were also perceived as helpful aspects of the negative eWOM that provided additional insight into the product. The positive and negative constructed eWOM mentioned the same aspects of comfort and quality; however, the negative descriptions (39%) of comfort and quality were mentioned in a higher percentage of participant feedback than positive descriptions (28%).
Table 4.14 summarizes of overall participant feedback about eWOM in relation to the type of information provided in the constructed eWOM comments.

The neutral eWOM was perceived as not helpful by most participants (84%), who did not provide as many details about the constructed eWOM in their feedback, except that it “asked questions.” Overall, eWOM comments that mentioned ethical claims (23%) or gave additional information, such as washing instructions (10%), were helpful to participants. Participant feedback about neutral eWOM had less emphasis on general and ethical characteristics of the t-shirt because this is how the eWOM comments were constructed (Table 4.14).

For all of the eWOM conditions, participants valued eWOM that provided additional details about the t-shirt. Participants wanted to know about comfort, texture, durability and quality when making a decision whether to purchase the t-shirt. They also valued eWOM that provided additional information about ethical characteristics, whether it verified them, or questioned the ethics of the t-shirt.

**Additional Product Characteristics**

The second open-ended question asked participants about additional characteristics they seek when shopping for ethical apparel: “Are there any other characteristics that you look for when shopping for ethical apparel?” Responses were provided by 617 (69%) participants. However, 302 responses (49%) indicated that there were no additional characteristics to add. Out of 315 participants who discussed some ethical characteristics, 77 respondents (24%) mentioned ethical characteristics already addressed in the study, including cruelty free, various factors related to human welfare (e.g., working conditions, employee treatment), use of ethical materials (e.g., organic, recycled), reduced water and energy use, generated pollution, and donations to charity. Therefore, the remaining 238 responses that provided additional product characteristics
were used for the data analysis. Figure 4.6 presents the content cloud created with participant feedback about additional characteristics they desire in ethical apparel, where larger words represent higher frequency of responses. Characteristics were organized into three themes:

(a) affordability,

(b) general product characteristics, and

(c) ethical product characteristics.

Figure 4.7 Content cloud of participant feedback about additional ethical apparel characteristics not included in the study.

**Affordability**

Overall, price and affordability were mentioned as the most important additional consideration when shopping for ethical apparel (Figure 4.6). *Price* was specifically mentioned by 90 participants (38%). A Millennial participant stated, “I still consider price--if it's too much, I can't buy it, even if I like all the things about it.”
General product characteristics

The second theme explained additional general product characteristics that participants were likely to consider when shopping for ethical apparel. These were mentioned in 124 (52%) participant responses (Figure 4.6); multiple characteristics were mentioned in many of the responses. Product characteristics related to *quality* (n=44, 18%) and *durability* (n=24, 10%) were commonly mentioned by participants. Specific characteristics related to quality and durability mentioned by 1% of participants included: “washable”, “shrinkage” and “fading.” A Millennial indicated, “I love my apparel to be durable so it can last for the longest time. I also like no shrinkage and/or fading of color and fabric.”

*Comfort* was mentioned in 41 responses (17%). Participants discussed the “feel” of “material” and “softness” related to comfort. A Generation X participant stated, “I want the material to feel good. If it doesn’t, it doesn’t matter to me what’s in it, if I’m not comfortable wearing it.” Two participants (<1%) specifically said they look for apparel that is “breathable.”

Forty responses (17%) mentioned characteristics related to *style* of the product, including characteristics such as “color” and “fit.” A Generation Z participant said, “While I want my clothing to be ethical, I do not want to sacrifice style.” Another important general characteristic mentioned by participants was *country of origin*, of where the product was made (n=24, 10%). A Generation X participant declared “… I try to buy from first world countries because they do the most to lower their pollution rates.” While a Millennial participant specified, “I make sure that it was made in the United States and not imported.” Eleven participants specifically sought items “*made in the USA*” (5%).
Ethical Product Characteristics

As previously stated, 77 (24%) participants who provided short-answer feedback confirmed that they search for ethical characteristics included in the study. Additional ethical characteristics were mentioned in 49 participant responses (21%). Individual ethical characteristics respondents’ desire were mentioned by small numbers of participants, but provided an interesting perspective into ethical issues that were important. Twenty-three responses (10%) discussed transparency and the desire to know that companies are truthful (Figure 4.6). A Generation X participant stated, “I always wonder how the company that makes the apparel treats their own employees and how honest they are with the public.” A couple of participants cited that the “company’s reputation” and “certifications” to prove their actions were important. A Baby Boomer specified, “I look for quality and certification that it is made where and how it claims to be”.

Fourteen participants (6%) mentioned additional human welfare characteristics they desire in ethical apparel. These included “sweatshop free” (2%), “employee benefits” (<1%) and “retail wages” (<1%). Non-discrimination policies (2%) were also mentioned, specifically acceptance of “LGBTQ” (<1%) individuals and “employing women” (<1%). A Generation X participant responded, “I also look to see how the corporation treats LGBTQ individuals and what their non-discrimination policies are.”

Eleven participants (5%) gave feedback about eco-friendly materials they look for in ethical apparel. Specific materials included “natural” (1%), “no plastics/micro plastics” (1%), “hemp” (<1%), and “recyclable” (<1%). A Baby Boomer participant stated, “Polyester clothing contributes heavily to micro plastics in oceans each time laundered. I stopped wearing it.” Two participants (<1%) mentioned that they search for “chemical free” apparel.
Other ethical considerations mentioned by participants were “shipping practices” \( (n=3, 1\%) \) and “packaging” \( (n=1, <1\%) \). While one participant (<1%) specifically stated that they look for “locally produced” apparel. Another participant (<1%) preferred items that were “secondhand.” Two participants (<1%) mentioned an additional animal welfare characteristic, which was “vegan.”

Overall, price was reported as the single most important additional characteristic sought after in ethical apparel: affordability was discussed in 38% of the responses included in the analysis. Next, general product characteristics of quality, durability, comfort, style, and country of origin were important to 52% of respondents. Additional ethical characteristics were mentioned by 21% of participants. Overall, participants wanted an ethical company to be transparent and prove that their claims were true. More specific environmental, human and animal welfare issues were mentioned in small percentages of responses (i.e., 5% or less).
CHAPTER 5. CONCLUSIONS AND DISCUSSION

This chapter summarizes the research results and discusses the findings presented in Chapter 4. Conclusions, implications, and limitations of these findings are discussed. Recommendations for future research are presented.

Research Summary

The purpose of this study was to examine the effects of social media, eWOM, and price on attitude towards purchase and purchase intention of ethical apparel products using theory of reasoned action (TRA). The study investigated the importance of nine ethical apparel characteristics to female consumers of different ages. The four research objectives addressed in the study were:

1. Compare the effectiveness of different social media to influence consumer attitude towards purchase and purchase intention of ethical apparel.

2. Examine how subjective norm in the form of eWOM influences attitude towards purchase and purchase intention of ethical apparel.

3. Analyze the impact of price on attitude towards purchase and purchase intention of ethical apparel by comparing high- and low-price points of ethical apparel.

4. Investigate the importance of ethical apparel characteristics to consumers:
   a. based on extant research and theoretical considerations, develop a comprehensive classification of ethical apparel characteristics;
   b. based on the developed classification of ethical apparel characteristics, identify what ethical apparel characteristics are perceived as most important to consumers;
c. identify how consumer age influences what ethical apparel characteristics are perceived as important.

To examine the research objectives, first a systematic and comprehensive classification of ethical apparel characteristics was created. Then, information about a t-shirt with nine ethical characteristics (i.e., organic cotton, recycled polyester, fair trade, safe working conditions, cruelty free, donation to charity, reduced water use, reduced energy use, and reduced pollution) was presented to participants using a 2 media (video or blog) x 3 eWOM (positive, neutral, or negative) x 2 price (high or low) experimental design. The nine characteristics were selected based on extant literature and market trends. Participants were randomly assigned to one of the 12 stimuli conditions that included identical information and pictures to describe the nine ethical characteristics of a t-shirt. Next, participants completed a survey measuring attitude towards purchase and purchase intention of ethical apparel. Participants were also asked to rate the importance of each of the nine ethical characteristics of the t-shirt and give open-ended feedback about the eWOM and other ethical apparel characteristics.

A total of 1,127 MTurk workers participated in the study. However, 236 responses were removed that did not meet the demographic criteria or had missing data. This resulted in a sample size of 891 female U.S. residents between 18 and 72 years old. A majority of the sample (58%) were Millennial’s, followed by Generation X (23%), Baby Boomers (12%), and Generation Z (7%).

Data analysis was conducted in three phases, including: preliminary analysis, hypotheses testing, and content analysis of open-ended responses. Preliminary analysis included descriptive analysis, factor analysis, and reliability analysis. Hypotheses testing used regression, a series of one-way ANOVA, and a 4 x 9 mixed ANOVA. Open-ended feedback from participants was
evaluated with a content analysis to identify major themes related to the eWOM and additional considerations when shopping for ethical apparel.

Summary of the Results

Classification of Ethical Apparel Characteristics

The classification system used in the current study was developed based on extant research of ethical apparel (e.g., Freestone & McGoldrick, 2008; Henninger et al., 2016; Peloz & Shang, 2011; Reimers et al., 2016). It addressed four distinct dimensions of ethical apparel characteristics: (a) environmental responsibility, (b) human welfare, (c) animal welfare, and (d) philanthropy. This four-factor classification is unique, as other existing classifications for ethical apparel were incomplete and have excluded either animal welfare (Henninger et al., 2016) or philanthropy (Henninger et al, 2016; Reimers et al., 2016). The classification system also differentiated between the fair trade and fair labor/ safe working conditions within the human welfare category. The classification and clear definitions of each dimension are useful to organize and study ethical apparel characteristics in a systematic way.

Relationship between Attitude towards Purchase and Purchase Intention

Regression analysis confirmed that attitude towards purchasing ethical apparel is positively related to purchase intention. This is consistent with previous research regarding consumer attitude and purchase intention of ethical apparel (Cowan & Kinley, 2014; de Lenne & Vandenbosch, 2017; Hwang et al., 2015; Ma et al., 2012; Zheng & Chi, 2015). Attitude toward purchase accounted for 33.5% of the variance in purchase intention of ethical apparel, meaning that other variables can also contribute to explain purchase intention. For example, perceived behavioral control (e.g., availability of ethical apparel, ease of locating and shopping) might contribute to explaining purchase intention (Ajzen, 1991; Zheng & Chi, 2015).
Effect of eWOM on Attitude

ANOVA results revealed that participants exposed to positive eWOM had higher attitude towards purchasing ethical apparel than participants exposed to neutral and negative eWOM. However, there was no difference in attitude between participants exposed to neutral and negative eWOM. The finding supports previous research that exposure to subjective norm through social media can influence consumer attitude towards products (Chueng et al., 2009; Lee et al., 2008; Moran & Muzellec, 2014).

Specifically, for apparel, de Lenne and Vandenbosch (2017) examined the influence of eWOM through social media (fashion bloggers, activists, industry organizations, and fashion magazines) on consumer attitude and purchase intention towards ethical apparel. The present research finding confirms de Lenne and Vandenbosch’s (2017) research that positive eWOM about ethical apparel delivered through social media can increase consumer attitude. The authors also found a negative influence of negative eWOM; however, in the present study, attitudes for neutral and negative constructed eWOM were the same. The lack of difference between neutral and negative eWOM could be that it was difficult to construct neutral feedback. In this study, 33% of participants perceived neutral eWOM as positive. The misperception of neutral eWOM in the study could explain the lack of difference between neutral and negative eWOM conditions.

Effect of eWOM on Purchase Intention

ANOVA was used to test the effect of eWOM type on purchase intention. It was found that participants exposed to positive eWOM had higher purchase intention of ethical apparel than those exposed to negative eWOM. There was no difference in purchase intention between participants exposed to positive and neutral or neutral and negative eWOM.
The findings support previous research that used modified versions of TRA, suggesting that subjective norm can result in higher or lower purchase intention (Cowan & Kinley, 2014; Han & Chung, 2014; Zheng & Chi, 2015). DeLenne and Vandenbosch (2017) did not find that eWOM through social media directly influenced purchase intention of ethical apparel. This could be related to the fact that random exposure to eWOM was surveyed by the authors, whereas the present study used an experimental design to intentionally expose participants to one-sided constructed eWOM. Therefore, the influence of eWOM (i.e., subjective norm) delivered through social media on purchase intention of ethical apparel is a unique finding of the current study.

**Participant Feedback about eWOM**

In open-ended feedback, participants were asked what parts of the eWOM was helpful to them. More participants perceived positive eWOM as helpful (77%), followed by negative (46%) and neutral (16%). The positive eWOM was perceived as helpful because the comments addressed specifics about the comfort, quality, and ethical characteristics of the t-shirt. This supports previous research that the quality and credibility of online reviews is enhanced by additional information to support the reviewer’s opinion (Cheung et al., 2009; Erkan & Evans, 2016; Moran & Muzellec, 2014). Participants also perceived that the positive eWOM was from people who had purchased the product and were satisfied with their purchase. This supports the findings of Kim et al. (2017), who found that eWOM from verified buyers had a positive influence on purchase probability. The perceived helpfulness of positive eWOM in the present study could help to explain why it resulted in higher attitude and purchase intention than neutral and negative eWOM.
Effect of Time Reading eWOM on Attitude and Purchase Intention

Instructions in this study asked participants to read the eWOM carefully. The majority of the sample (64.3%) reported that they read very carefully, followed by those that read the eWOM somewhat carefully (32.2%). Participants who read the eWOM very carefully had significantly higher attitude and purchase intention than those who read somewhat carefully and not carefully. Floyd et al. (2014) mentioned that consumers research more, including reading online reviews, for high involvement products that are either more expensive or have high importance to them. Therefore, consumers who take the time to read eWOM thoroughly might have higher attitude and purchase intention towards ethical apparel that could lead to purchase.

Typically, a basic t-shirt is not a high involvement product (Emadi, 2013), but ethical products can be high involvement based on consumer concern for certain ethical characteristics or the product itself (Bezencon & Blili, 2010). It was shown that consumers who are pre-disposed to ethical awareness and concern are more involved in researching ethical products (Bezencon & Blili, 2010; Emadi, 2013) and more influenced by eWOM than less involved consumers (Bezencon & Blili, 2010). The willingness to carefully read eWOM is likely dependent on how interested consumers are in ethical products and could vary based on ethical awareness and concern. Consumers who are more involved might be more influenced by eWOM than less involved consumers.

The time spent reading/researching information could also be related to how the comments were presented to participants. The comments did not include any quantitative features (e.g., star ratings, overall helpfulness rating, verified purchase badge) that could be quickly scanned by the participants (Kim et al., 2017). The comments were made up of text that necessitated reading, which required more systematic information processing, motivation, and
ability to process the message (Kim et al., 2017). Even though participants were instructed to carefully read eWOM, the comments were not easy to quickly scan and required careful reading to process. This could help explain why participants who read carefully processed the information more and had higher attitude and purchase intention.

**Effect of Media Type on Attitude and Purchase Intention**

Identical information about the ethical t-shirt was presented to participants via either video or blog post. Comparing video and blog information delivery is unique to the present study and has not been done before. ANOVA revealed that there was no difference in attitude and purchase intention between participants exposed to video and blog. The lack of difference between the two media could be explained by: (a) the perceived animation of the media, (b) the perceived interactivity of the media, and (c) the fact that both media conditions included precise information with images to support the main concepts, as discussed below.

Sundar and Kim (2005) found that perceived interactivity of advertising led to higher levels of purchase intention than perceived animation. Manipulation checks of the two media conditions found that the video was perceived as more animated than the blog, most likely because the video had music and the information transitioned automatically. The video and blog had the same perceived interactivity. Since interactivity might lead to higher purchase intention than animation (Sundar & Kim, 2005), this could explain why there was no difference on attitude and purchase intention regardless if they watched the video or read the blog.

Information about ethical apparel is often vague, scattered, and too technical, making it hard for consumers to understand (Luck & Ginanti, 2013). A streamlined presentation of information was recommended to make it more accessible to consumers on social media. In the present study, the same very clear and easy-to-read information with pictures was presented in
both video and blog media conditions. The finding that there was no difference between media conditions supports the notion that presenting clear and transparent information about ethical products might be more important than how the information was presented (video vs. blog). However, if media with different perceived interactivity were used, the results could be different.

**Effect of Price on Attitude and Purchase Intention**

ANOVA results found no difference in attitude and purchase intention between participants exposed to the high vs. low price conditions. The lack of influence of price supports previous scholarly findings (Bhaduri & Ha-Brookshire, 2011; Castaldo et al., 2009) and market research (Bishop, 2018; Neilson, 2015) that consumers are willing to pay a premium price for ethical apparel. However, Grimmer and Bingham (2013), who manipulated the price of cell phones from responsible companies, concluded that when price of ethical products gets too high, consumers opt for lower-priced options that might be less ethical. One possible explanation for this finding is that participants read reviews about the product. Floyd (2014) suggested that when consumers research by reading reviews before purchase, they might be more willing to pay a higher price for the product. Another explanation is that the high ($40) and low ($20) price options were relatively inexpensive for the t-shirt. Including a third, even higher, price point might have yielded greater price sensitivity and differences in attitude and purchase intention.

However, in the current study, participants exposed to the low-price condition were more willing to buy the t-shirt for full price than participants exposed to the high price condition. Further, open-ended responses from participants revealed that price was the most important additional consideration when shopping for ethical apparel. This indicates that price is still important to consumers of ethical apparel.
The t-shirt presented in the study was a dark grey, crew neck, unisex t-shirt with no brand given. Consumers might be willing to pay a higher price for a fashion forward, unique, or branded ethical apparel product. A more unique or expensive product could have higher involvement than a basic t-shirt (Emadi, 2013). No existing research has manipulated high- and low-price options, specifically, for ethical apparel, so these findings contribute to the body of literature and warrant further exploration of the topic.

**Importance of Ethical Apparel Characteristics**

Participants in the study were asked to rate the importance of each of nine ethical characteristics of the t-shirt. These responses were evaluated for the overall sample and within the four generation groups using a 4 x 9 mixed ANOVA. All but one (donation to charity) characteristics had high ratings (above five on a seven-point scale), suggesting that participants found all of the characteristics relatively important. Safe working conditions, cruelty free, reduced pollution, and fair trade emerged as the top four most important ethical characteristics across all generation groups.

**Safe working conditions and fair trade**

Overall, the most important ethical characteristic was safe working conditions, which supports past findings that consumers are most concerned with human welfare when shopping for ethical apparel (Bhaduri & Ha-Brookshire, 2011; Bhaduri & Ha-Brookshire, 2015; Shen et al., 2012). However, Reimers et al. (2016) found that employee welfare was rated second to cruelty free in a sample of Australian consumers. The increase in concern for the welfare of workers could be due to increased awareness and publicity of factory conditions after the 2013 Rana Plaza building collapse in Bangladesh (Yardley, 2013).
Fair trade was the other ethical characteristic related to human welfare examined in the present study. This was the fourth most important ethical characteristic. Previous research supports that fair trade is an important characteristic for consumers (Bhaduri & Ha-Brookshire, 2015; Hwang et al., 2015; Ma et al., 2012). However, in previous studies, attributes of fair trade and safe working conditions were often presented together (Bhaduri & Ha-Brookshire, 2015; Hwang et al., 2015). The high rating of both safe working conditions and fair trade support that consumers of all ages are concerned with human welfare when shopping for ethical apparel.

**Cruelty free**

The second most important characteristic to participants in this study was cruelty free. Only Reimers et al. (2016) has specifically compared cruelty free to other ethical apparel characteristics. In an Australian sample, the authors found that animal welfare had twice the influence of human welfare and environmental responsibility on consumer attitude and purchase intention of ethical apparel. The differences between the present study and the findings of Reimers et al. (2016) could be due to the cultural differences between U.S. and Australian consumers. Australian consumers are more frequently exposed to the cruelty of the wool industry, possibly, making them more sensitive to animal welfare issues.

Animal welfare is currently important in the beauty industry (Chitrakorn, 2016), and other evidence suggests that cruelty free fashion is of growing importance to consumers (Dobson, 2016). Additionally, there was a 600% increase of people in the U.S. who follow vegan diets between 2014 and 2017 (Forgrieve, 2018). The overall trend towards products that are not animal based or do not harm animals could be spreading to include apparel. Findings in the present study highlight the importance of animal welfare and cruelty free apparel products for
consumers of all ages. It is worth noting that the top two ethical characteristics in the study concern the wellbeing of living creatures, including humans and animals.

**Reduced environmental impact**

The study examined three specific environmental characteristics related to the process of t-shirt production, including: (a) reduced pollution, (b) reduced water use, and (c) reduced energy use. In addition, two ethical materials, recycled polyester and organic cotton, that have reduced environmental impact and affect consumer use of the product were examined. Of these environmental characteristics, reduced pollution was rated the highest.

**Environmental production characteristics**

Reduced pollution was the third most important ethical characteristic overall, making it the top rated among the environmental characteristics. Consumers might have heightened concern about pollution due to more publicity about harmful chemicals in clothing from campaigns such as “Detox My Fashion” by Greenpeace (Greenpeace, 2018) and “Fashion Revolution” (Bell, 2016). Due to awareness about chemical pollution in countries with heavy manufacturing, consumers might also relate pollution to human welfare concerns. Additionally, consumers who are educated about living a healthy lifestyle might want to avoid chemicals based on health concerns (Baizley, 2018). Reduced pollution has not previously been examined in studies concerning ethical apparel; thus, this finding is unique. The environmental characteristics of reduced energy and reduced water use were rated fifth and sixth in importance. These were not different from each other or recycled material, but were more important than organic cotton.

**Environmental Material Characteristics**

The ethical characteristics of materials (recycled polyester and organic cotton) were rated seventh and eighth in importance. Recycled polyester was not different in importance from
reduced energy, reduced water, or organic cotton. This could be because the stimuli information explained that reduced water and energy consumption were benefits of using recycled polyester over traditional polyester. Organic cotton was rated second lowest overall, but was not different from recycled material. The stimuli stated that organic cotton used less harmful substances and less water to grow; however, it was rated less important than reduced water use.

Of the environmental product and environmental material characteristics, organic and recycled content have been studied the most, but were the least important environmental characteristics in the present study. Some studies evaluated consumer attitude or purchase intention of organic cotton, but did not compare it to other ethical characteristics (Han & Chung, 2014; Hustvedt & Dickson, 2009). Studies that compared multiple ethical apparel characteristics, reported that organic and recycled content was somewhat important to consumers, but not as important as human welfare (e.g., Bhaduri & Ha-Brookshire, 2011; Hill & Lee, 2012; Hwang et al., 2015), which was corroborated in the current research. Only Hill & Lee (2012) reported that energy efficiency and water usage were more important than organic and recycled materials in ethical apparel; however, they used a limited sample of millennial textile and apparel college students who might be more aware of the environmental impact of apparel production.

This is an important finding because many apparel companies advertise organic or recycled fiber content as one of the main ethical characteristics of their products, but reduced pollution, energy, and water might be more important to consumers. Unlike organic food, organic fabric does not appear to be as important to consumers as companies might think. It could be that consumers do not directly consider health benefits of organic fabrics or that consumers are accustom to seeing organic materials in apparel.
**Philanthropy**

Donation to charity was the lowest rated (9th) ethical characteristic in this study, and was significantly less important than all other ethical characteristics. Previous research has found that consumers have positive reactions to companies who fund social initiatives (Becker-Olsen et al., 2006) and that consumers appreciate when a portion of the money they pay for a product goes to charity (Bhattacharya & Sen, 2004). Further, Peloza and Shang (2011) reported that philanthropy in the form of donating a portion of purchase to charity was the most common corporate social responsibility (CSR) practice among various types of companies. Ethical apparel companies, such as Patagonia, donate a portion of profits to environmental and social causes (Patagonia, 2018c). Based on the prevalence of companies’ philanthropic efforts and research that consumers appreciate companies that donate to charity, it was unexpected that participants would rate donation to charity as the least important ethical characteristic. A possible explanation for this finding could be that supporting philanthropic efforts has become a common practice for all companies, not only ethical companies. Consumers might expect philanthropy efforts (Baizley, 2018); therefore, they did not rate it as important when compared to other, specifically ethical, product characteristics.

**Transparency**

Open-ended feedback about additional ethical characteristics desired in ethical apparel revealed that consumers value when a company is truthful. Participants indicated that they want to purchase from a company that is ethical and has a good reputation. They also cited that they value companies that have certifications and can support their ethical claims. This indicates that, in addition to ethical characteristics of product, the company being transparent with information and ethical practices is important to consumers. This finding supports market research that
consumers want transparency in the supply chain, so they know about the production practices and materials in ethical products (Bell, 2017).

**Generation Group and Ethical Product Characteristics**

Overall, the generation groups rated the same ethical characteristics as most important, but there were some differences between the four groups. Baby Boomers were different from both Generation X and Millennials, but not Generation Z. No other generation groups were different from each other. Further, there was no significant interaction between generation group and ethical characteristics, causing hypothesis 6 to be partially supported. These findings are an important contribution to the body of literature as the effect of age was not examined in relation to ethical apparel before.

Current market research reports that Generation Z and Millennials are more ethically focused than Generation X and Baby Boomers (Baizley, 2018; WGSN Consumer Insight, 2016). In contrast, scholars argue that Generation X and Baby Boomers are more likely to purchase ethical products based on higher income and having more life experiences (Jayawardhena et al., 2016). Arli and Pekerti (2016) found Generation X and Baby Boomers to be more ethically focused than Millennials.

Findings from the present study support scholarly research that Baby Boomers are more ethically focused than other age groups, but did not find the same for Generation X. It is also interesting that the oldest cohort (Baby Boomers) and the youngest cohort (Generation Z) were more similar to each other in their ratings of ethical apparel characteristics in comparison with the other two groups (Generation X and Millennials). This is in line with consumer research that Generation Z are ethically minded shoppers (Baizley, 2018). Millennials were not found as the
most concerned with ethical product characteristics overall, contradicting market research (Baizley, 2018; WGSN Consumer Insight, 2016).

Many factors can account for the discovered differences in ethical characteristics importance between the four generation groups. It is possible that the youngest (Gen Z) and oldest (Baby Boomers) groups are simply more ethically-minded shoppers based on their beliefs and values. This would indicate that as Generation Z ages, they are likely to support ethical companies. It is also possible that the youngest and oldest consumers have more time to research ethical products and might have more disposable income during their life stages. In the case of Generation Z, they would be relying on parents’ income. This proposition indicates that as Generation Z ages and start families, they might prioritize ethics of products less. This would also help explain why the two middle-aged groups (Generation X and Millennials) were less concerned with ethics: they are busy building careers, having families, and paying for expenses, such as college loans and mortgages. This gives them less time and disposable income to research and support ethical products. The generational difference with respect to importance of ethical characteristics is an important finding and warrants further investigation.

Safe working conditions, cruelty-free, reduced pollution, and fair trade were the four top-rated ethical characteristics across all generation groups. It was expected that different generation groups would rate different ethical characteristics as more important based on the notion that past experiences of consumers can help shape ethical orientation and purchasing behavior (Jayawardhena et al., 2016; Muncy & Vitell, 1992). Further, previous research about Baby Boomers found that they had the most interest in purchasing organic cotton and did not find fair trade important (Hustvedt & Dickson, 2009), which contradicts the findings of the present study. Human welfare (safe working conditions and fair trade) was expected to be the most important
ethical characteristic to Millennials based on multiple previous studies (e.g., Bhaduri and Ha-Brookshire, 2015; Hill & Lee, 2012; Hwang et al., 2015), which was supported by findings in this study: safe working conditions were most important to all generation groups. Cruelty free was expected to be rated high by Generation Z (Baizley, 2018; Seemiller & Grace, 2015); however, all generation groups found cruelty free important. Philanthropy was expected to be important to Generation X, Millennials, and Generation Z (Baizley, 2018), but this was not supported by the findings.

Existing ethical apparel research has focused on Millennials (e.g., Bucic et al., 2012; Hill & Lee, 2012; Hwang et al., 2015) or Baby Boomers (Hustvedt & Dickson, 2009). The present study is distinctive because it compared four generation groups, covering ages 18-72, and provided information about Generation X and Generation Z that was lacking in scholarly literature. Therefore, the findings on the importance of ethical characteristics across multiple generation groups provide new knowledge in the body of literature.

Implications

Theoretical Implications

Development of a comprehensive classification of ethical apparel characteristics is an important theoretical contribution. The classification consists of four distinct dimensions: human welfare, animal welfare, environmental responsibility, and philanthropy. This classification system can be used to guide systematic research efforts.

The classification of ethical apparel can be used by educators as a teaching tool or to inspire assignments. Students can practice conveying information about ethical product characteristics in a clear and concise way. Students could also analyze communication about
ethical apparel characteristics by companies, both on their websites and social media, and offer suggestions for improvement.

Findings from the present study expanded the body of literature that uses TRA to examine consumer attitude towards purchase and purchase intention of ethical apparel products. First, previous findings were confirmed that attitude towards purchase of ethical apparel is positively related to purchase intention. The present study used social media to disseminate information about ethical apparel, indicating that the TRA model is appropriate for use in research using social media as a source of information to influence attitude.

Further, the present study upheld previous findings to support modification to the TRA that subjective norm resulted in both higher attitude and purchase intention, not only attitude. This study also expanded TRA by using digital eWOM as subjective norm as opposed to more intimate contact with close groups, such as friends or family. This supports expansion of subjective norm in the digital world to include social interactions online.

**Industry Implications**

The findings from the present study have multiple practical implications for the apparel industry. First, the comprehensive classification of ethical apparel characteristics can be utilized by industry to identify and efficiently communicate important attributes of ethical apparel to consumers. It can also help companies organize information on their websites and social media, so it is easy for consumers to find and understand. When information about ethical characteristics of apparel products are communicated concisely, it is possible that more consumers will purchase ethical apparel and they might be less price sensitive as well (Bhaduri & Ha-Brookshire, 2015; Kang & Hustvedt, 2014). Clear information will also help consumers
purchase ethical apparel with confidence, knowing how the ethical products impact humans, animals, and the environment.

Attitude towards purchase of ethical apparel is positively related to purchase intention, so companies should continue to look for ways to influence consumer attitude about ethical apparel, including the use of social media. This should lead to increased purchase intention, and hopefully actual purchase behavior, as predicted by TRA. Therefore, companies should continue efforts to inform consumers about ethical apparel characteristics to encourage purchase.

**eWOM**

The finding that attitude and purchase intention was higher for participants exposed to positive eWOM in this study is important and could encourage marketing managers to look for additional ways to provide positive eWOM about ethical apparel. This could include encouraging previous customers to leave positive reviews by providing incentives, or making customers brand representatives that act as influencers who spread positive information about the brand. Further, brand representatives could be encouraged to provide additional information about the comfort, quality and ethical characteristics of apparel to encourage potential buyers.

Participants in the study who carefully read eWOM had higher attitude and purchase intention than participants who did not read as carefully. Based on this finding, companies could use tactics to encourage potential customers to thoroughly read eWOM provided in social media or consumer reviews. Since not all consumers will read eWOM comments on social media or product websites on their own, companies could use tactics to highlight positive eWOM in obvious and convenient places. For example, Lush, a cosmetics brand with ethical qualities includes eWOM from verified purchasers on all product pages, which makes it easy for customers to view the comments as they shop (Farooqi, 2019). Imagery or videos to highlight
positive eWOM comments could be created to catch the attention of consumers who are browsing. These could be placed on the home page of brand websites, social media posts, or highlighted in blogs and videos to help draw consumer attention to positive eWOM.

Consumers exposed to information through YouTube video and blog did not differ in attitude and purchase intention of ethical t-shirt in this study. However, these and other social media are important avenues to inform consumers about ethical apparel and can give them a place to interact with one another to provide eWOM about products. By providing more interactivity within social media for consumers, information can be shared between consumers, which might lead to greater attitude and purchase intention.

Consumers who value ethical products are more likely to research them and read eWOM. These consumers might be more influenced by positive eWOM than un-concerned consumers. Ethical brands could use digital analytics to identify consumers who have researched or purchased ethical products and market to them using social media. For less involved or ethically focused consumers, the addition of easy to read cues, such as star ratings or verified purchase badge, could be added to eWOM to decrease the amount of time and effort required to process the information.

**Price**

No significant difference was found in attitude or purchase intention of ethical apparel between high and low price conditions. This could indicate to companies that consumers are willing to pay a premium price for ethical apparel when they are aware of the ethical characteristics and their meanings. The t-shirt presented in the media also included nine different ethical characteristics, suggesting that when an item has multiple ethical characteristics,
consumers may not be as price sensitive. Companies could focus on relaying information about multiple ethical characteristics within a single item.

However, the finding that participants were more likely to buy the t-shirt for full price when price was low indicates that consumers are still sensitive to the price of ethical apparel. In addition, participants mentioned in open-ended feedback that price was an important consideration when purchasing ethical apparel. Therefore, companies should strive to find a balance between ethical characteristics and price so that consumers perceive value, even if the price is higher.

**Ethical product characteristics**

In this study, the most important ethical characteristics were: (a) safe working conditions, (b) cruelty free, (c) reduced pollution, and (d) fair trade. Human welfare characteristics are important to consumers. These are often referred to as “fair trade” or “fair labor”; however, these terms might be hard for consumers to understand. Companies might have better reaction from consumers if “safe working conditions” is specifically stated in marketing and labeling, instead of the buzz words like “fair trade” and “fair labor”.

Cruelty free was the second most important ethical characteristic. The Leaping Bunny logo is displayed on cosmetic and household products to certify that they are cruelty free (Leaping Bunny, 2014). However, there is no cruelty free certification labeling currently available for apparel products. There is a case for a cruelty free certification and logo for apparel products, so consumers can purchase cruelty free apparel with confidence.

Out of the five environmental characteristics presented in this study, reduced pollution was the most important and recycled and organic materials were the least important. Few apparel products highlight reduced pollution, reduced energy use, or reduced water use on labeling or
advertising, perhaps, because often these are difficult to measure and document. Since these characteristics were more important than recycled and organic content, companies should consider promoting and labeling these characteristics. As consumers become more aware of the direct negative environmental impact of apparel production, specific information about reduced chemical pollution, energy use, and water use, might be more important to consumers than materials.

Companies should be aware that consumers value when companies are transparent and can support their claims about ethical product characteristics. Simply labeling an ethical characteristic with a word or two as a marketing tactic should be avoided. Consumers want to know that companies’ efforts to make apparel ethically are sincere and involve broader business practices and not just buzz words used for marketing purposes. To build consumer trust, it is essential for companies to provide a brief explanation about ethical product characteristics, their short- and/or long-term impact on environment and certify their claims.

**Generation groups**

Baby Boomers rated all nine ethical characteristics higher than other generation groups, suggesting that they should not be overlooked as an important target market for ethical products. Further, Generation Z was similar to Baby Boomers in their ethical apparel ratings. This indicates that marketing efforts for ethical apparel should be focused on consumers of all age groups, not just Millennials as suggested by market research.

**Consumer Implications**

Positive eWOM about ethical apparel can lead to higher attitude and purchase intention. If companies call attention to helpful eWOM from consumers who have purchased the product, consumers who need more information before purchase could benefit. When the price of ethical
apparel is high, it might be helpful for consumers to get feedback about the comfort and quality of the product from others who have purchased.

However, consumers should be aware of how positive eWOM effects their attitude and purchase intention of products. Tactics used by companies to promote positive eWOM or make it easy to find can increase attitude and purchase intention. While reviews can help consumers make important purchase decisions, consumers should approach the information with caution. They should check to make sure the eWOM came from a trustworthy source, such as a verified customer and not a brand representative who was given incentives to provide a positive review.

**Limitations**

The sample of 891 U.S. female residents from four generational cohorts ranged from 18-72 years old. However, the majority of the sample (58%) was between 24 and 38 years-old, representing the Millennial generation. The income of the sample was somewhat lower than the U.S. average; however, if lower income consumers were willing to pay $20-$40 for the product, then higher income consumers should also. The sample was more educated than the U.S. female population, but this is typical for MTurk workers (Paolacci et al., 2010; Ross et al., 2010) and in line with extant research that ethical consumptions is positively related to education (Boztepe, 2012). Due to the above differences of the sample and the US female population, caution should be applied when generalizing the results of the study. Further, it is difficult to determine: (a) how much effort participants put into answering the questionnaire; (b) if they were truthful about demographic information (e.g., gender, age, or U.S. residency), and (c) if there were repeat responders. However, it was established that self-report web-questionnaire data is not adversely affected by these factors more than pencil-paper methods (Gosling, Vazire, Srivastava, & John, 2004).
Participants in this study were paid MTurk workers who followed guidelines to complete the questionnaire as instructed. Therefore, the majority of the sample (64.3%) carefully read the eWOM comments. However, they might have read quickly, but reported reading carefully to get compensated. This could explain the misperception of neutral and negative eWOM as positive by some participants. In contrast, consumers who are interested in ethical apparel shopping, might use even greater care in reading eWOM. Therefore, caution should be used in when interpreting this result.

Further, the eWOM provided to participants was constructed so that each participant was only exposed to one-sided constructed comments. The neutral and negative eWOM was perceived correctly by 57.2% and 58.1% of participants, respectively. The misperception that neutral and negative eWOM comments in the study were positive could have an effect on the research results. In reality, eWOM will be a mix of positive, neutral, and negative comments from multiple perspectives. When the sidedness of eWOM varies, its effect on attitude and purchase intention might be different. Due to the experimental design of the study, participants were exposed to only one type of eWOM, which is rarely the case in real life. Therefore, the results should be generalized with caution (Lynch, 1982).

When conducting research about ethical products, it is important to consider social desirability bias (Wrench et al., 2016). The media presented positive ethical characteristics of a t-shirt, so it is possible that participants changed their responses to seem more supportive of the products and come across as more ethical people. Because of this, attitude, purchase intention, price sensitivity, and importance of ethical characteristics could be somewhat inflated. However, Gosling et al. (2004) reported that socially desirability bias is decreased with anonymous web-based surveys.
The t-shirt in the study had nine ethical characteristics. While the comparison of nine ethical characteristics at once provided important insight into consumer perspectives, it might also misrepresent characteristics that consumers find important because so many were compared at the same time. It might be beneficial in future research to limit the number of ethical characteristics and explore fewer options at once.

**Future Research**

In the future, scholars could examine the effect of social media and eWOM as subjective norm to influence attitude and purchase intention. Regression analysis revealed a positive relationship between attitude towards purchasing ethical apparel and purchase intention. It would be beneficial to examine what other variables can explain purchase intention of ethical products. Further, researchers could also explore mediating and moderating effects of various variables, including subjective norm, perceived behavioral control, media type, price, and age.

Kim et al. (2018) suggested that online reviews were more effective when there was a close relationship between the consumer and the website. In the present study, there was no relationship between participants and the social media/website. Scholars could examine the influence of eWOM on brand websites and brand-sponsored social media sites, such as Instagram, Facebook, and YouTube. In this case, consumers would already be interested in the brand to follow and view their social media and engage in conversation with other consumers of the brand. eWOM on social media that consumers have a previous relationship with might have a different effect on attitude and purchase intention.

Influencers are another newer form of eWOM that could be explored in the future studies. Consumers build close relationships with influencers and trust their opinions. Influencer marketing is prevalent in the fashion industry (Abnet, 2016) and there are also influencers for
sustainable living (Lasher, 2017). While influencers have been researched in regards to eWOM (Chu & Kim, 2018), their impact on attitude and purchase intention of ethical apparel has not yet been explored.

This was one of the first empirical attempts to examine the influence of price over consumer attitude and purchase intention by comparing two price points of ethical apparel. Due to no difference in attitude and purchase intention at high vs. low price levels, further exploration should be done on this topic. More than two price points could be compared so there would be low, medium, and high options. Additional influences on price could also be explored, including apparel brand, style and being promoted by an influencer.

Continued research should compare generational cohorts and their reaction to ethical apparel. While the exploration of U.S. female consumers provided interesting findings, males could also be included. The relationships between generational cohorts, different social media types, and eWOM would also be interesting to explore further.
REFERENCES


WGSN. (2016). Marketing to generation Z. Retrieved 1/25/17 from: https://www.wgsn.com/m/board_viewer/#/67056/page/1


APPENDIX A. T-SHIRT INFORMATION PROVIDED IN STIMULI

What goes into this $40 t-shirt? Believe it or not, a simple t-shirt can have a large impact on the planet and people, check out what goes into this one.
50% Recycled Polyester
Using recycled polyester reduces the need for petroleum as a raw material and diverts plastic bottles and recycled clothing from landfills to give them new life. The recycled polyester in this t-shirt saves energy and water and also decreases air, water, and soil contamination.

50% Organic Cotton
Organic cotton is grown without the use of synthetic fertilizers, soil additives, defoliants and other substances that are bad for soil, water, air and living beings. The organic cotton in this t-shirt uses less water and is less toxic to the planet and people.
Fair Trade Sewing
The factory that produced this t-shirt pays a premium for Fair Trade certification to support the people behind the product. Workers are paid a fair wage, plus extra money goes directly to factory workers for community empowerment and to promote sustainable livelihoods and wellbeing for workers.

Safe Working Conditions
This t-shirt was made in a factory with safe working conditions. It has high standards for health and safety of workers and ensures no child or forced labor.
Cruelty Free
This t-shirt is made with no animal products, such as leather, fur, or wool. Nothing used in this product is tested on animals or has any animal origins.

Gives Back
A portion of the $40 you spend on this shirt is given to charity to create a better world.

Sample blog stimulus:  https://abnerapparelresearch.blogspot.com/2017/12/a-better-t-shirt-pb.html.

Sample video stimulus:  https://www.youtube.com/watch?v=RrwN8Al4rAE&feature=youtu.be
APPENDIX B. QUALTRICS SURVEY

Please verify below.

☐ I'm not a robot

Are you female?

☐ Yes

☐ No

Are you currently residing in the US?

☐ Yes

☐ No
Welcome to the research study!

Investigators: Melissa Abner and Dr. Elena Karpova, Department of Apparel, Events and Hospitality Management, Iowa State University.

You are invited to participate in a research study examining consumer shopping for apparel. This form has information to help you decide if you wish to participate. Your participation is completely voluntary. You may choose not to take part in the study, or to stop participating at any time, for any reason, without negative consequences.

For your time, you will be paid $.25 through Amazon Mechanical Turk.

Note: see full informed consent document in Appendix C.

Please visit the following link to view a short blog post about a t-shirt. Make sure to read the comments that follow. The blog will open in a new screen. When you are finished, return to this tab or screen to complete the survey. [https://abnerapparelresearch.blogspot.com/2018/06/f-better-t-shirt-nl.html](https://abnerapparelresearch.blogspot.com/2018/06/f-better-t-shirt-nl.html)

Note: Qualtrics randomly assigned participants to one of 12 stimuli conditions using the block randomizer.
To what extent do you agree with the statements about the media you just viewed?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This post was animated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This post was interactive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How important is each of the following apparel characteristics to you?

**Use of organic material**

- [ ] Extremely unimportant
- [ ] Moderately unimportant
- [ ] Slightly unimportant
- [ ] Neither important or non important
- [ ] Slightly important
- [ ] Moderately important
- [ ] Extremely important

**Use of recycled material**

**Fair trade**

**Safe working conditions**

**Cruelty free**
Company's donation to charity

Reduced water use

Reduced energy use

Reduced pollution

Are there any other characteristics that you look for when shopping for ethical apparel?

I think purchasing the t-shirt I just learned about is ________
I would buy the t-shirt I just learned about for full price.

I will consider buying ethical apparel.

I intend to buy ethical apparel in the future.

I will try to buy ethical apparel.
What type of consumer comments did you read?

- Negative Comments
- Positive Comments
- Neither positive, nor negative comments

How carefully did you read the comments provided?

- Not Carefully
- Somewhat Carefully
- Very Carefully

What, if any, comments or parts of comments were helpful for you?
Please choose the category that includes your current age.

- □ 18-23
- □ 24-30
- □ 31-38
- □ 39-53
- □ 54-63
- □ 64-72
- □ 73+

What is your ethnicity or ethnic identity? (check all that apply)

- □ Caucasian American or European American
- □ African American
- □ American Indian or Alaska Native
- □ Asian
- □ Native Hawaiian or Pacific Islander
- □ Other
What is the highest level of education you have completed?

- [ ] Less than high school
- [ ] High school graduate
- [ ] Some college
- [ ] 2 year degree
- [ ] 4 year degree
- [ ] Professional degree
- [ ] Doctorate

What state do you live in currently?

[ ]
What is your average household income?

- Less than $10,000
- $10,000 - $19,999
- $20,000 - $29,999
- $30,000 - $39,999
- $40,000 - $49,999
- $50,000 - $59,999
- $60,000 - $69,999
- $70,000 - $79,999
- $80,000 - $89,999
- $90,000 - $99,999
- $100,000 - $149,999
- More than $150,000

Thank you for completing this survey.
Your response has been recorded.

Your Mturk completion code is:
8926796643
APPENDIX C. INFORMED CONSENT

Welcome to the research study!
Investigators: Melissa Abner and Dr. Elena Karpova, Department of Apparel, Events and Hospitality Management, Iowa State University.

You are invited to participate in a research study examining consumer shopping for apparel. This form has information to help you decide if you wish to participate. Your participation is completely voluntary. You may choose not to take part in the study, or to stop participating at any time, for any reason, without negative consequences.

For your time, you will be paid $.25 through Amazon Mechanical Turk.

If you give your consent to participate in the study, please click "I consent, begin the study" after reading information about the study.

The purpose of this study is to investigate how information about apparel products might influence attitude and purchase intention of these products. In order to be eligible to participate, you must be a female residing in the US and be 18 years or older.

If you agree to participate, you will be asked to read information about a t-shirt. Please make sure to read the consumer comments following the information. Then you will be asked to complete a short survey. Your participation should only take 10-15 minutes total.

There are no physical risks associated with this study. The research findings will contribute to the research field of ethical apparel.

This study does not collect any information that could be used to identify you. All responses will be kept confidential. Please be aware that any work performed on Amazon MTurk can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. We will not be accessing any personal information about you that might be available on your Amazon public profile page. We will store your MTurk worker ID separately from the other information you provide to us.

You are encouraged to ask any questions at any time during this study. For further information about the study, please contact Melissa Abner at mabner@iastate.edu, (660) 543-8724 or Dr. Elena Karpova at karpova@iastate.edu, (515) 294-9266. If you have questions about the rights of research subjects, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

By clicking below, you are agreeing to participate in this study. You may print a copy of this form for your files.
APPENDIX D. IRB APPROVAL LETTER

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
2420 Lincoln Way, Suite 202
Ames, Iowa 50014
515-294-4566

Date: 06/12/2018
To: Melissa Abner
Elena Karpova

From: Office for Responsible Research

Title: An exploration of social media and eWOM to influence attitude and purchase intention of ethical apparel for U.S. female consumers

IRB ID: 18-244
Submission Type: Initial Submission

Exemption Date: 06/11/2018

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

2: Research involving use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior, unless (i) Information obtained is recorded in such a manner that human subjects can be identified, and (ii) Any disclosure of the human subjects’ responses outside the research could reasonably place the subject at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

The determination of exemption means that:

- You do not need to submit an application for annual continuing review.

- You must carry out the research as described in the IRB application. Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. The purpose of review is to determine if the project still meets the federal criteria for exemption.

In addition, changes to key personnel must receive prior approval.

Detailed information about requirements for submission of modifications can be found on our website. For modifications that require prior approval, an amendment to the most recent IRB application must be submitted in IRBManager. A determination of exemption or approval from the IRB must be granted before implementing the proposed changes.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may
constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Please note that you must submit all research involving human participants for review. Only the IRB or its designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

Please be aware that approval from other entities may also be needed. For example, access to data from private records (e.g., student, medical, or employment records, etc.) that are protected by FERPA, HIPAA or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.

Please be advised that your research study may be subject to post-approval monitoring by Iowa State University’s Office for Responsible Research. In some cases, it may also be subject to formal audit or inspection by federal agencies and study sponsors.

Please don’t hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.