EXAMINING THE EFFECTS OF KNOWLEDGE, ENVIRONMENTAL CONCERN, ATTITUDES AND CULTURAL CHARACTERISTICS ON KUWAITI CONSUMERS' PURCHASING BEHAVIOR OF ENVIRONMENTALLY SUSTAINABLE APPAREL

by

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B.S., The Public Authority for Applied Education and Training, 2005
M.A., Western Michigan University, 2012

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Apparel, Textiles, and Interior Design
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

Abstract

This study examined the effects of knowledge of apparel and textile (AT) manufacturing's impacts on the environment, environmental concern, attitudes toward environmentally sustainable apparel (ESA), and the cultural characteristics of adult, female Kuwaiti nationals on purchasing behaviors of ESA. This study was conducted because Kuwait is a large consumer market for apparel goods and there was a gap in the existing literature on sustainable apparel with regards to Kuwait. To measure the independent variables of knowledge related to the environmental impacts of AT manufacturing, environmental concern, attitudes towards ESA, and the cultural characteristics of Kuwaiti women on the dependent variable of ESA purchase behavior intentions, a mixed methods approach was used. This mixed method approach included a survey instrument featuring five different scales to acquire data through quantitative methods on a population of Kuwaitis acquired through snowball sampling. Semi-structured interviews were then utilized to acquire further data for a qualitative data analysis. The results were then analyzed through descriptive statistics, regressions, and coding. The data analysis of the quantitative survey responses of the female Kuwaiti nationals showed that their level of knowledge on the environmental impacts of the AT industry was low, their level of environmental concern was neutral, their ESA attitudes were neutral, and their ESA purchase intentions were slightly positive. Regression results found that environmental concern had no relationship with ESA attitudes, knowledge about AT related environmental issues positively influenced ESA attitudes, and both knowledge about AT related environmental issues and ESA attitudes had a positive influence on ESA purchase intentions. Additionally, the cultural dimensions of the surveyed population showed high power distance and collectivism, low long-term orientation and uncertainty avoidance, and intermediate levels of masculinity and

indulgence. The qualitative interview revealed that Kuwaiti culture is strongly influenced by the Islamic religion, and the culture supports high levels of consumerism and ostentatious consumption. A majority of qualitative participants did not express any attitudes toward ESA, and none of the participants had purchased ESA products previously. This could be because female Kuwaiti nationals are limited in their knowledge related to AT environmental risks and are generally unaware of ESA and its purpose. The study's data could be used to provide educators with information through which to tailor curricula towards the knowledge, attitudes, and beliefs of Kuwaiti nationals. Additionally, this information could be essential for manufacturers and retailers of ESA products, so that they can produce and sell ESA affectively in Kuwait.

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Table of Contents

List of Figures

List of Tables

Acknowledgements

I would like to thank my advisor Dr. Kim Hiller Connell for her guidance and suggestions. I would like to thank my family, especially my spouse and children for being away from our home country and for being patient with me. I would like to thank all of the participants for their contribution to my work. I would like to thank the government of Kuwait for their financial support. Finally, I would like to thank everyone else who supported me till I got to this point.

Chapter 1: Introduction and Statement of the Problem

Background

Environmental Sustainability in the Public Consciousness

Environmental sustainability has been a significant global issue in the western spotlight since the 1960s after the publication of two seminal books: *Silent Spring* by Rachel Carson (1962) and *The Population Bomb* by Paul Ehrlich (1968). These books depicted the consequences of unchecked environmental pollution as a result of human industrial practices. In *Silent Spring*, author Rachel Carson described a mute world devoid of avian life in the event that pesticide use continued unmitigated, as the chemicals were killing birds at an alarming rate (Carson, Darling, & Darling, 1962). *The Population Bomb* projected a dystopian planet where dual factors of exponential population growth, coupled with a shrinking habitable landmass due to pollution, led to the human species reaching the earth's carrying capacity—a cataclysm which would create mass death and suffering (Ehrlich, 1968).

The publication of these books, along with several high profile environmental disasters created a heightened sense of environmental consciousness in the United States and other industrialized nations. *Silent Spring* (Carson, Darling & Darling, 1962) and *The Population Bomb* (Ehrlich, 1968) significantly changed the beliefs, and later the knowledge and attitudes, of the US population regarding human-environment interactions.

Essentially, the introduction of new agricultural and manufacturing techniques and their associated chemicals and technologies created new environmental realities. The environmentalist movement was considered a response to these new and unexpected damages wrought by these

technologies. In the United States, one impact of this cultural shift was the creation of the Environmental Protection Agency (EPA), which has made several historic contributions to the cause of environmental sustainability (Robertson, 2014).

'Environmental sustainability' refers to a production strategy where the inputs used in industrial production are derivable from its outputs, and there is a goal of minimizing waste products which are either not biodegradable or may take so long to biodegrade that they become a hazard to environmental health (Robertson, 2014). The goal of environmental sustainability is thus to limit the damage done to environmental ecosystems through the accumulation of waste matter (Robertson, 2014). Since the Industrial Revolution, the majority of manufacturing outputs, including those associated with the production of textiles and apparel, have been toxic to the environment in one way or another. The waste from these manufacturing processes has disrupted valuable natural ecosystems important to both human and animal life (Claudio, 2007).

The Textile and Apparel Industry and Environmental Sustainability

The textiles and apparel (AT) industry is one of the world's largest manufacturing industries, and ranks among the leading sources of pollution and consumption of natural resources on the planet (Challa, 2015). The processes necessary to produce AT products require a number of organic and synthetic inputs, the majority of which bear significant environmental burdens. For example, the manufacturing of cotton garments requires that cotton fiber be grown in vast quantities (Hiller Connell & Kozar, 2014). Between 2010 and 2012, U.S. textile mills consumed an average of 3.6 million bales of cotton a year, and U.S. cotton farms harvested an average of 9.8 million acres a year, which produced about 17 million bales of cotton a year (National Cotton Council of America, 2016). As a crop, cotton requires enormous amounts of fresh water relative to other textile substrates, which depletes the surrounding environment of

this natural resource. Furthermore, frequently cotton is sprayed with pesticides and other agrochemicals in order to increase yields, which leads to chemical runoff and pollution. Dyes used to color the cotton are also often hazardous and hard to dispose of, which again creates even more chemical waste (Challa, 2015). Overall the waste produced from the production of AT products has led to the destruction of habitats for humans and other organisms. This is exacerbated in countries where there are few regulations on private companies' ability to pollute. Furthermore, because consumers have demonstrated themselves as being highly responsive towards lower prices for AT products, there is a clear economic incentive for manufacturers to pollute and cut costs whenever they can (Hustvedt & Dickson, 2009).

The consumption and disposal of AT products is also one of the largest contributors to solid waste on the planet. Consumers in the United States are estimated to throw out 68 pounds of clothing a year and 4% of all municipal waste in the United States can be directly attributed to discarded apparel (Claudio, 2007). Furthermore, because so much apparel is now made out of synthetic fibers, such as polyester, these garments have limited capacity to decompose and can last in landfills for considerable lengths of time before they biodegrade, thus rendering these landfills uninhabitable and disrupting the ecology of vast swathes of the earth's surface (Challa, 2015).

Responses to Environmental Issues in the Textiles and Apparel Industry

Due to increased public awareness of the environmental dangers posed by textile and apparel production, a demand has risen in many parts of the world, particularly the West, for apparel that is produced sustainably, signaling shifts in knowledge, beliefs, and attitudes (Hustvedt & Dickson, 2009). One of the solutions to these environmental problems has been the development of environmentally sustainable apparel (ESA). According to Hiller Connell (2010)

ESA is “apparel made with environmentally preferable attributes, including apparel made from environmentally preferable fibers or manufactured using environmentally preferable processes,” (p. 279).

Environmentally preferable fibers and manufacturing processes are favorable over mainstream alternatives because they use fewer resources and generate less pollution and waste (Hiller Connell, 2010). For example, organically-grown cotton is grown without the use of dangerous, synthetic chemicals and grown with less irrigated water (Hustvedt & Dickson, 2009).

Additionally, eco-conscious consumers in the West can buy clothing from consignment stores to do their part in lowering the demand for new textile and apparel production which ultimately consumes natural resources and releases pollutants into the environment. Recycled clothing is donated clothing or used apparel that is converted to basic fabrics and used for new garments or in industrial uses. Currently, only about 20% of all garments in the United States are donated to resale and consignment stores, meaning that about 80% of clothes purchased by Americans are dumped in landfills (Claudio, 2007). Unfortunately, ESA is less popular amongst consumers than clothing produced via unsustainable means due to the latter being cheaper. ESA often utilizes more expensive raw materials from organic crops, and generally utilizes more highly-paid labor. These factors increase the cost to producers and also consumers (Claudio, 2007).

While this information is indeed specific to the United States and other Western countries, the purpose of this dissertation is to explore the knowledge, beliefs, attitudes, and culture of the Middle Eastern country of Kuwait and the effects of these variables on purchases of ESA. Kuwait is a country with minimal examination of its citizens' knowledge, beliefs, and

attitudes towards environmental sustainability and ESA. Therefore, the information that is obtained through this study could help direct future consumer education resources on the topic of ESA in Kuwait and provide researchers with valuable information about the disposition that Kuwaitis have towards this apparel type.

Background Information on Kuwait

Kuwait, the focus of this study, is a small country about the size of the state of New Jersey and is situated in the northeast Arabian Peninsula along the Persian Gulf (see Figure 1.1). It is currently home to over 2.8 million people, with half of the total population comprised of expatriates from the Indian subcontinent. The expatriate population of Kuwait is comprised of a number of ethnicities and religions. The native population is culturally Arab and Muslim and features what is primarily an autocratic government, although there is a parliament in place which handles administrative affairs (Kuwait Central Statistical Bureau, 2005)

Figure 1.1 Map depicting Kuwait (Red Circle) (World Sites Atlas, 2015)

Kuwait is a rapidly industrializing country and its primary export is petroleum and petroleum products which, in total, account for three quarters of the GDP of the country which makes the economy very dependent on this commodity (Baqer, 2012). Recently, Kuwait has enjoyed a greater degree of prosperity than in the past due to the spike in oil prices which occurred in the early 2000s and has since remained high relative to the 1980s and 1990s ("U.S. crude oil," n.d.). However, the price of oil dropped in the summer of 2014, which has left the Kuwaiti economy running at a lower level than before and forcing the government to cut subsidies to the public and increase taxes on businesses (Al-Harami, 2015).

Despite recent drops in oil prices, prosperity buoyed by the oil industry has led to marked economic and cultural shifts. For example, Kuwait is now a market for Western apparel products which exist alongside traditional garb. GDP per capita for native Kuwaitis, not including expatriates, is $79,394 USD per year when adjusted for purchasing power ("Kuwait," 2013). This high GDP makes Kuwaiti nationals among the most prosperous people on the planet and drives a high degree of consumption in that economy. As a result, Kuwaitis have shown an appetite for luxury brands of apparel (Kelly 2010), many of which are not produced following guidelines of sustainability.

Kuwait is a society which bears a high degree of dimorphism between the sexes as well. Compared to more egalitarian countries where men and women share largely the same social roles, in Kuwait males and females have distinctive roles and are treated differently (Sabah, 2001). Because there are such broad differences between the genders, they tend to have highly divergent opinions on various issues. For example, women only gained the right to vote in Kuwait in 2005, which demonstrates that it is a very gender-segregated society (Kelly, 2010).

Overview of Kuwaiti Environmental Issues

By international standards, the state of the environment in Kuwait is poor; and this is due to circumstances both within and outside the control of Kuwait's people and government (Baqer, 2012). While the petroleum industry has enriched Kuwaiti life with its profit, it also has its costs to society, including extensive environmental pollution. This is not an issue that is unique to Kuwait, as oil producing states regularly rank in the top ten "most polluted" countries in the world due to the fact that petroleum production sends immense amounts of benzene, carbon dioxide, carbon monoxide, and nitrogen oxides into the air (Alsalem & Khan, 2010). These pollutants have caused vast damage to the local health of the population, spurring significantly increased cases of asthma, leukemia, and skin conditions related to exposure to airborne chemicals (Alsalem & Khan, 2010). Kuwait has also experienced significant environmental pollution throughout its history due to war and conflict (Baqer, 2012).

Problem Statement

There is a gap in the literature identifying the knowledge, beliefs, and attitudes that Kuwaitis hold about environmental issues in the apparel and textile industry and towards environmentally sustainable apparel; and thus the problem is that these variables are unknowns. Understanding the knowledge, beliefs, and attitudes of Kuwaiti consumers related to ESA can help move the country towards positive change in consumption habits. Past precedents set in the West demonstrate that understanding of consumer attitudes, beliefs, and knowledge can have a marked impact on governmental policy and consumer demand, leading to changes towards sustainable lifestyles and consumption habits (McFarlane & Ogazon, 2011). Such a change is especially important for a country like Kuwait, which has a history of significant pollution and

environmental damage. Furthermore, because of Kuwait's high degree of influence in the Middle Eastern region, as well as the similarities of its culture and economy to neighboring states, the findings of this study could be applied to several of the other twenty-two Arab states which have a combined population of over 300 million individuals (World Bank, 2015). The potential for proliferation of sustainable ideas could contribute greatly to global environmental awareness.

Purpose Statement and Objectives

The purpose of this mixed-methods study is to inquire about the knowledge, attitudes, and behaviors of Kuwaiti female consumers regarding environmental issues in the apparel and textile industry and environmentally sustainable apparel through quantitative surveys and semi structured interviews administered to Kuwaiti nationals. Specifically, this study sets out to answer the following research questions:

1. What are the cultural characteristics of female Kuwaiti nationals?
2. What level of environmental concern is held by female Kuwaiti nationals?
3. What is the level of knowledge held by female Kuwaiti nationals about the environmental impacts of apparel and textile manufacturing?
4. What attitudes do female Kuwaiti nationals hold about environmentally sustainable apparel?
5. To what degree are female Kuwaiti nationals engaged in environmentally sustainable apparel purchase behaviors?

6. How does environmental concern and the level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing influence attitudes about environmentally sustainable apparel attitudes?
7. How do female Kuwaiti cultural characteristics influence attitudes about environmentally sustainable apparel?
8. How do Kuwaiti attitudes about environmentally sustainable apparel influence sustainable apparel purchase behavior intentions?

Significance of the Study

The significance of this study is that it is the first of its kind for the country of Kuwait. It will also be one of the few studies that examine consumer behavior of a Middle Eastern population with regards to sustainable apparel. Thus, this study could serve as a strong indicator of what consumer preferences are within Kuwait and provide marketers and apparel firms with data about how to advertise their products to Kuwaitis. This study may also demonstrate the existence of a market for sustainable apparel in Kuwait, which could encourage more producers of environmentally sustainable apparel to sell their products in that country and perhaps across the Middle East as well.

Furthermore, the data obtained from this study could be used by government agencies in Kuwait to understand where the population is in terms of its education and feelings about sustainability and thus provide educators with data through which to tailor curricula towards the knowledge, attitudes, and beliefs of Kuwaiti nationals.

Taken within the regional context, this study could encourage researchers in neighboring countries to conduct their own studies regarding sustainable apparel or, taken on its own, this study could serve as a litmus test for how the entire Arabic-speaking Middle Eastern region perceives sustainable apparel. This may provide valuable insights to researchers, policymakers, and marketers about the knowledge, attitudes, and beliefs held by Arabs and Muslims with regards to environmentally sustainable apparel, and perhaps environmental sustainability as a whole.

Finally, the significance of this study lies in its ability to positively impact the environment should the data within provide use to policymakers and market actors. Ultimately, environmentalism is meant to produce a better world for us in the present, but also to encourage future generations to do the same and continue a perpetual cycle where the human species can continue to exist without current levels of environmental exploitation leading to catastrophic consequences.

Definitions

This section provides definitions for key concepts present in the dissertation

Attitudes: A subject's learned disposition towards a variable in their environment--usually positive, negative, or neutral in varying degrees (Fishbein, & Ajzen, 1975).

Beliefs: The information a person has about an object (Fishbein, & Ajzen, 1975).

Behavior: The observable actions taken by a subject towards objects in an environment; often influenced by beliefs, attitudes, subjective norms, and knowledge about those objects (Fishbein, & Ajzen, 1975).

Behavioral intention: A subject's predisposition towards a certain, actionable behavior; influenced by beliefs, attitudes, knowledge, and subjective norms (Fishbein, & Ajzen, 1975).

Culture: The sum total of learned beliefs, values, and customs that serve to regulate the consumer behavior of members of a particular society (Schiffman, 2009).

Environmental attitudes: The tendency to react either positively or negatively to perceptions of the environment (Milfont, 2009).

Environmental concern: beliefs about humanity upsetting nature's balance, the limited growth abilities of human societies, and the abilities of humans to rule over nature (Dunlap, Van Liere, Mertig, & Jones, 2000).

Environmental sustainability: A production strategy where the inputs used in industrial production are derivable from its outputs, and there is a goal of minimizing waste products which are either not biodegradable or may take so long to biodegrade that they become a hazard to environmental health (Robertson, 2014).

Environmentally sustainable apparel: Apparel that is produced according to practices which do not result in long-term damages to the environment and which can eventually be recycled for use in future apparel products or for industrial uses (Claudio, 2007).

Hofstede Theory of Cultural Dimensions: A metric for measuring aspects of culture. Includes power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence vs. restraint (Hofstede, 2002).

Knowledge: A subject's understanding of certain objects, phenomena, and relationships through the acquisition of factual information and learned skills (Schiffman & Kanuk, 2009).

Organic apparel: Apparel that is produced from textiles that are made from plants or animals that are grown or raised without the use of chemical fertilizers, growth stimulants, antibiotics, or pesticides (Challa, 2015).

Ostentatious consumption: The practice of purchasing products to demonstrate social rank (Riquelme, Rios, & Al-Sharhan, 2001).

Price sensitivity: Describes how increases or decreases in price affect the perception of a consumer about a certain product or set of products. Lower prices are generally the most important contributing factor to purchases in price sensitive consumers. Consumers motivated more by fashion or status seeking are less likely to be affected by price sensitivity (Bae, 2012).

Recycled apparel: Apparel made out of salvaged textile material that was formerly used in the construction of apparel products in the past (Claudio, 2007).

Subjective norms: Various normative beliefs that modify attitudes; frequently modified by culture, childhood, and personality (Fishbein, & Ajzen, 1975).

Sustainability: A system where the inputs are derivable from the outputs and there is no excess waste created (Robertson, 2014).

Theory of Reasoned Action: A theory for explaining how beliefs and attitudes affect behavior (Fishbein, & Ajzen, 1975).

Overview of the Dissertation

Following this introductory chapter, Chapter 2 proceeds with a section on theory, dealing mainly with the Theory of Reasoned Action (TRA) as well as Hofstede's Theory of Cultural Dimensions. These theories are described in detail to provide the reader with the information on the theoretical foundations for this examination of consumer behavior and the designs of the instruments that will measure Kuwaiti consumer perceptions both quantitatively and qualitatively. These theories tie in with the information provided in the literature review to give the reader a comprehensive look at how consumer behavior can be explained through the TRA as well as the Hofstede model.

Chapter 2 also contains a literature review which examines past studies dealing with consumer behavior towards environmentally sustainable apparel products, as well as sustainable products in general. The literature observed also explicates the "sustainable consumer" in detail in order to provide a frame of reference between the sustainable consumer and the average Kuwaiti consumer. More information regarding Kuwaiti consumers will also be supplied in order to provide the reader with a more detailed look at the habits and beliefs of Kuwaiti consumers in general as well as in specific towards certain types of consumption behaviors.

Following the literature review, the research methods are outlined in Chapter 3. This section includes the strategy used to approach the measurement of the variables and descriptions of the scales to be used. The data analysis plan is also presented in this chapter.

Chapter 4 includes the quantitative analysis of the survey. The analysis will use descriptive statistics to answer Research Questions one to five. Regressions will be used to answer Research Questions 6 and 8. Due to the nature of research Question seven, it will not be analyzed by quantitative methods.

Chapter 5 is the qualitative analysis of the interview portion of the study. The chapter will examine the themes and subthemes found during the interview process, and use these in the discussion of all eight research questions.

Chapter 6 contains the conclusions of the paper. Chapter 6 compares the quantitative and qualitative results and discusses the study's implications for educators, ESA manufacturers, and retailors of ESA in Kuwait. The study's limitations will be addressed and future research will be suggested.

Chapter 2: Theoretical Foundations and Review of Literature

The purpose of this chapter is to discuss the theoretical framework and literature that grounds the study. First, the Theory of Reasoned Action is explained in detail, along with a discussion of the variables of knowledge, beliefs, attitudes, and subjective norms which serve as its foundation. Next, the Hofstede Theory of Cultural Dimensions is outlined with a discussion of each of the theory's six dimensions. The chapter then proceeds with a presentation of the study's research model and ends with the literature review.

Knowledge, attitudes, beliefs, and behavioral intentions are all factors in traditional consumer behavior models that try to predict consumer actions. Essentially, knowledge, attitudes, and beliefs are independent variables while the dependent variable is behavior (or behavioral intentions). Although there are numerous consumer behavior models, this review of the theory primarily focuses on the Theory of Reasoned Action (Fishbein &Ajzen, 1975)—a model which has served as the basis for several other models created over the years.

Theoretical Framework

The Theory of Reasoned Action

The Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) is a theory focused on predicting the behaviors of actors under observation, often consumers. Prediction of behavior is important as the livelihoods of companies and other institutions around the world depend on their ability to predict how people will react to advertisements, products, and actions. Specifically, the

TRA (see Figure 2.1) examines beliefs which lead to attitudes, which lead to behavioral intentions. These behavioral intentions then lead to observable behaviors. The TRA also includes subjective norms, which also lead to behavioral intentions. Attitudes are defined as the sum of beliefs about a specific behavior while subjective norms are perceptions of cultural and social influences upon a subject that lead to behavioral intentions. Subjective norms are frequently modified by culture, childhood, and personality. Because attitudes and subjective norms are constructs within the minds of individuals, they are also unobservable. Therefore, objective conclusions about how beliefs, attitudes, knowledge, subjective norms, and behavioral intentions that affect behavior can only be drawn from observed behaviors (Fishbein & Ajzen, 1975).

Thus, the TRA explains how beliefs and the attitudes that follow can predict behavior. Beliefs contribute to the formation of attitudes, and a combination of knowledge, attitudes, and subject norms then influence behavior. In addition, attitudes might affect the beliefs that a person has when they come across new information. Ultimately, all of these factors combine so as to provide a model for predicting human behavior. This theory chapter examines the various methods by which attitudes are measured and modeled and the behaviors that beliefs influence. Subjective norms are defined by Fishbein and Ajzen (1975) as various normative beliefs that modify attitudes including culture. Therefore, subjective norms will be characterized by the Hofstede theory, which attempts to quantify cultural dispositions which can then be applied to individuals.

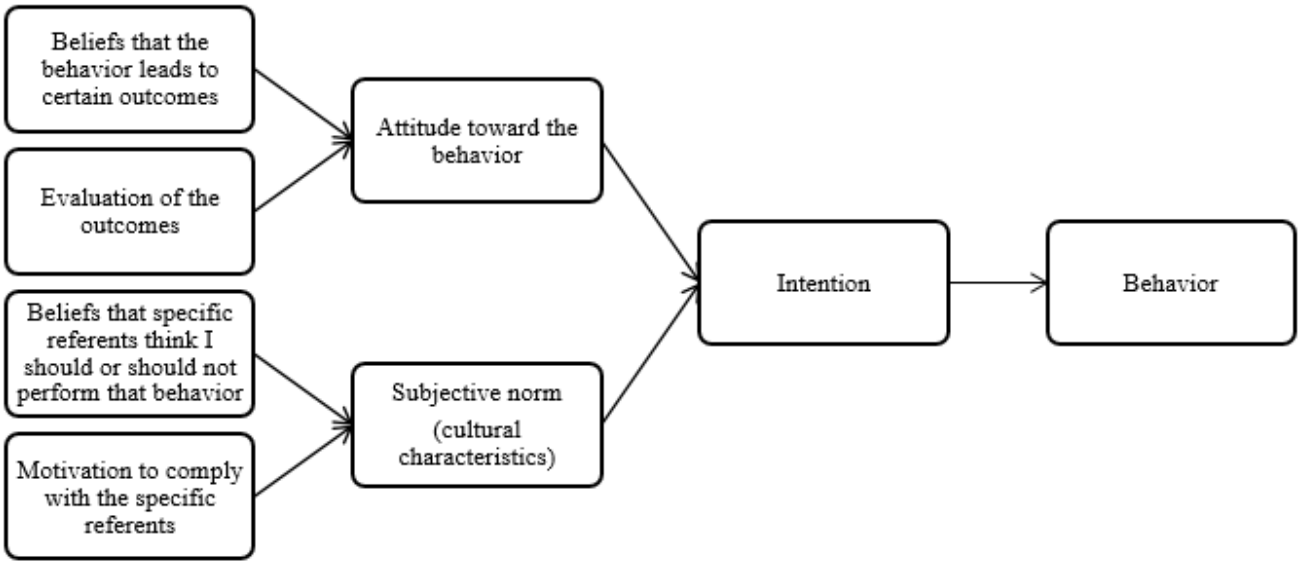

Figure 2.1 The Theory of Reasoned Action

Knowledge and Beliefs

Knowledge is the information that a person has committed to memory about people, processes, objects, and various other natural and manmade systems—both discrete and abstract. Individuals hold *beliefs* about certain objects, which are cognitive biases that are often particular to a person or a culture (Fishbein & Ajzen, 1975). Knowledge and beliefs are related as beliefs are formed from knowledge, and beliefs are being continuously tested by new information. If a person receives new information, he or she must then find a way to fit the information into his or her belief system or discard the previously held beliefs (Fishbein & Ajzen, 1975). There are a number of factors which can influence beliefs, including religion, schooling, and parenting. An amalgamation of beliefs leads to the formation of *attitudes*.

Attitudes

Fishbein and Ajzen (1975) define attitudes as a summation of related beliefs, for example about economics and politics. Details regarding knowledge, beliefs, and attitudes and how they modify consumer behavior is explained in the literature review section of this chapter.

The Hofstede Theory and Subjective Norms

Subjective norms are a component of the TRA, and they refer to the external, social pressures placed on a decision maker that subsequently influence his or her behavioral intentions (Fishbein & Ajzen, 1975). These subjective norms are personal factors that modify attitudes. Additionally, these subjective norms are frequently modified by culture, childhood, and personality. This research focuses on the cultural influence aspect of subjective norms and utilizes the Hofstede Theory of Cultural Dimensions as a grounding framework (Hofstede, 2001).

In the 1970s and 1980s, Geert Hofstede, a Dutch researcher, worked with IBM to create a metric for quantifying aspects of culture. This became known as the Hofstede Theory of Cultural Dimensions, whereby four different cultural dimensions were extrapolated and measured (Hofstede, 2001). These dimensions were then compared to one another to determine how they affected each other when present in the same population. The four original dimensions of culture were power distance (PDI), individualism (IDV), uncertainty avoidance (UAI), and masculinity (MAS). These dimensions were represented on a 1-100 scale, with 100 being the highest manifestation of a specified cultural dimension.

Both long-term orientation (LTO) and indulgence versus restraint (IVR) were added to the Hofstede Theory of Cultural Dimensions in response to surveys conducted using the model

around the world.[1] LTO was added after a survey of Chinese employees which found the four original dimensions of power distance, uncertainty avoidance, individualism, and masculinity as insufficient for modeling employees' behaviors. In 2010, IVR was added after observations made by a Bulgarian scientist who modeled indulgence and restraint societies (Maclachlan, 2013). Figure 2.2 illustrates all six separate cultural dimensions in the Hofstede Theory of Cultural Dimensions. All six of these variables work to provide a profile for a specific country's culture. Generally, all six dimensions are treated as discrete variables and defined independently of one another.

The first dimension, power distance index (PDI), is the intensity by which a society is stratified according to social classes. PDI depends on the concentration of authority within a society, which can be highly concentrated or dispersed. Countries with a high degree of power distance tend to have distinct social classes and are run by authoritarian governments. On the other hand, countries with low PDI tend to have populations represented by democratic governments where the population selects their leaders. Power distance also accounts for the acceptance of the status quo in that the people must accept their places in society in order for power distance to be defined. A state undergoing a revolution between classes would be said to have a power distance in flux (Hofstede, 2001).

Power distance tends to be lower in cultures further from the equator; and Hofstede theorized that this is because, historically, people in the higher latitudes had to work together in order to survive in their harsh climates, thereby distributing teamwork, and having less power distance between individuals. Furthermore, Hofstede discovered that countries with higher power

[1] Religion is not a major component of Hofstede's Cultural Dimensions. Because Kuwaiti citizens are predominantly Islamic, religion will be included within the cultural dimensions of this study through the qualitative interviews.

disparity also tend to have families with a strong hierarchy that has a male at the head of the household (Hofstede, 2001).

Individualism (IDV) versus collectivism is the cultural dimension which defines the degree of altruism in a society. Individualism also reflects the importance of personal achievements and individual rights in a society, and it is the degree to which people identify as distinct, individual entities versus members of a larger group. The stereotypical "individualistic" country is the United States, where people see themselves as individuals first and part of a collective only at a secondary or tertiary level. A more collectivist country is one like China which has citizens who are more altruistic and more willing to sacrifice themselves and their income for collectivist concerns (Hofstede, 2001).

Uncertainty avoidance index (UAI) describes the propensity for people within a culture to take risks and their tolerance for insecurity and ambiguity. Cultures with a high level of uncertainty avoidance, such as China, will be far less likely to have individuals partaking in risky behavior, whether it is economic or social. These countries with high levels of uncertainty avoidance are also generally more conformist societies. Low uncertainty avoidance cultures, like the United States, may celebrate risk taking, particularly entrepreneurship, and are thus considered to be more creative (Hofstede, 2001).

Ironically, high uncertainty avoidance cultures are more accident-prone and tend to see social and economic shocks reverberate throughout their societies far more frequently. Cultures with members inclined to take more risks end up reducing the likelihood of exposure to unexpected shocks in the long run. This may be because high uncertainty avoidance cultures are far more vulnerable to the unexpected while individuals in cultures that stress risk taking expect

the unknown more frequently and thus prepare for it in innovative and creative ways. Cultures with low uncertainty avoidance also tend to be more optimistic (Hofstede, 2001).

The fourth metric of Hofstede's original four cultural dimensions is masculinity (MAS) versus femininity. What is defined as "masculine" comes from the traditional gender role construct where men are seen as competitive and women as more cooperative. Masculine cultural traits include a propensity for high economic earning drive, a desire to advance within a hierarchy, and embrace of new challenges. Feminine traits are those that create strong relationships between people, increased cooperation, and safety. In a traditional society, i.e. one that is more masculine, men are the primary household income earners while women rear children and take care of the home. Masculine societies have a propensity to be more individualistic than collectivist, although there are still societies that are simultaneously masculine and collectivist, the most notable being Japan. It is worth noting that the gender generalizations present in the masculinity versus femininity dimension have led to it being renamed by some users of Hofstede's theory to "Quantity of Life vs. Quality of Life" (Hofstede, 2001).

Long term orientation describes the degree of importance that cultures place on planning for the future as well as an emphasis on saving capital. A country, such as Germany, which historically had cold and harsh winters, required a culture that embraced the virtues of saving and building for winter months. Cultures closer to the equator, such as Kuwait, do not have this same climate restriction, and thus Kuwait has a lower LTO score. High LTO societies save money, spend more time building marketable skills, and see the value in deferral of gratification. Countries which score lower in LTO seek out short-term gratification, are more prone to sticking to traditional values, and want to preserve face over taking risks.

The final metric, indulgence versus restraint (IVR), describes the social acceptability of impulsive behaviors. Countries which favor restraint are more prone towards looking down upon behaviors which satisfy immediate needs at the cost of long-term benefits. Countries which favor indulgence seek out gratification in the short term and have laws and industries which facilitate the drive towards satisfying impulses.

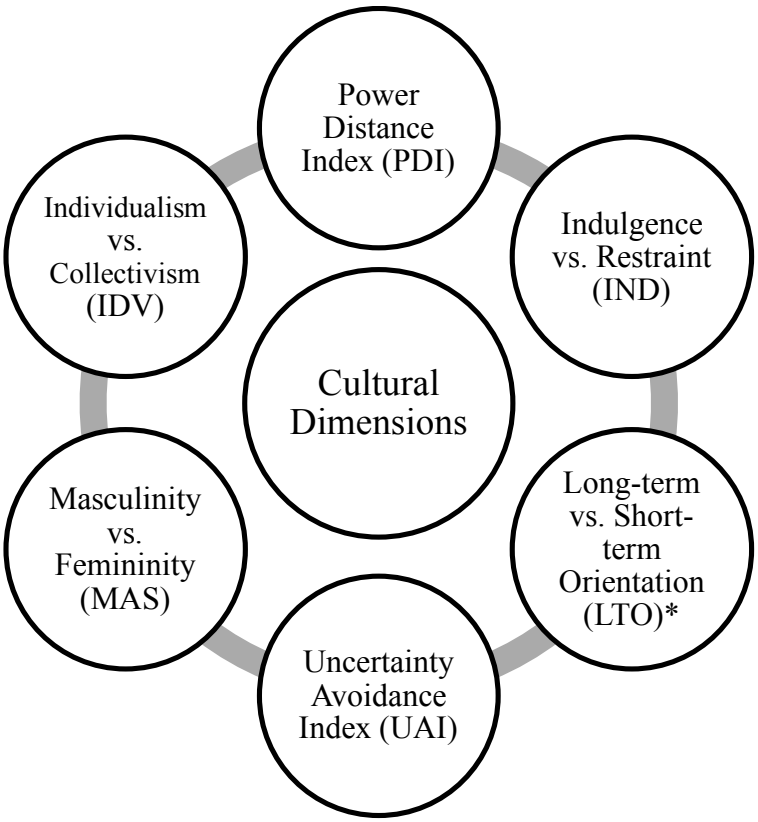

Figure 2.2. The Hofstede Model of Cultural Dimensions

Unifying Knowledge, Beliefs, Attitudes, Behavioral Intentions, and Cultural Characteristics

A model combining the variables of knowledge, beliefs, and attitudes is seen in Figure 2.3. This research model guides the literature review and design of this study. The first variables in the model are "Environmental Concern," which is representative of an individual's beliefs

about the current state of the environment and human—environment interactions, along with "Knowledge of Environmental Impacts of AT Manufacturing." It is proposed that these two variables affect "Environmentally Sustainable Apparel Attitudes." Finally, "Environmentally Sustainable Apparel Purchase Intention" should be influenced by “Environmentally Sustainable Apparel Attitudes.” Furthermore, all of these variables are influenced by cultural characteristics.

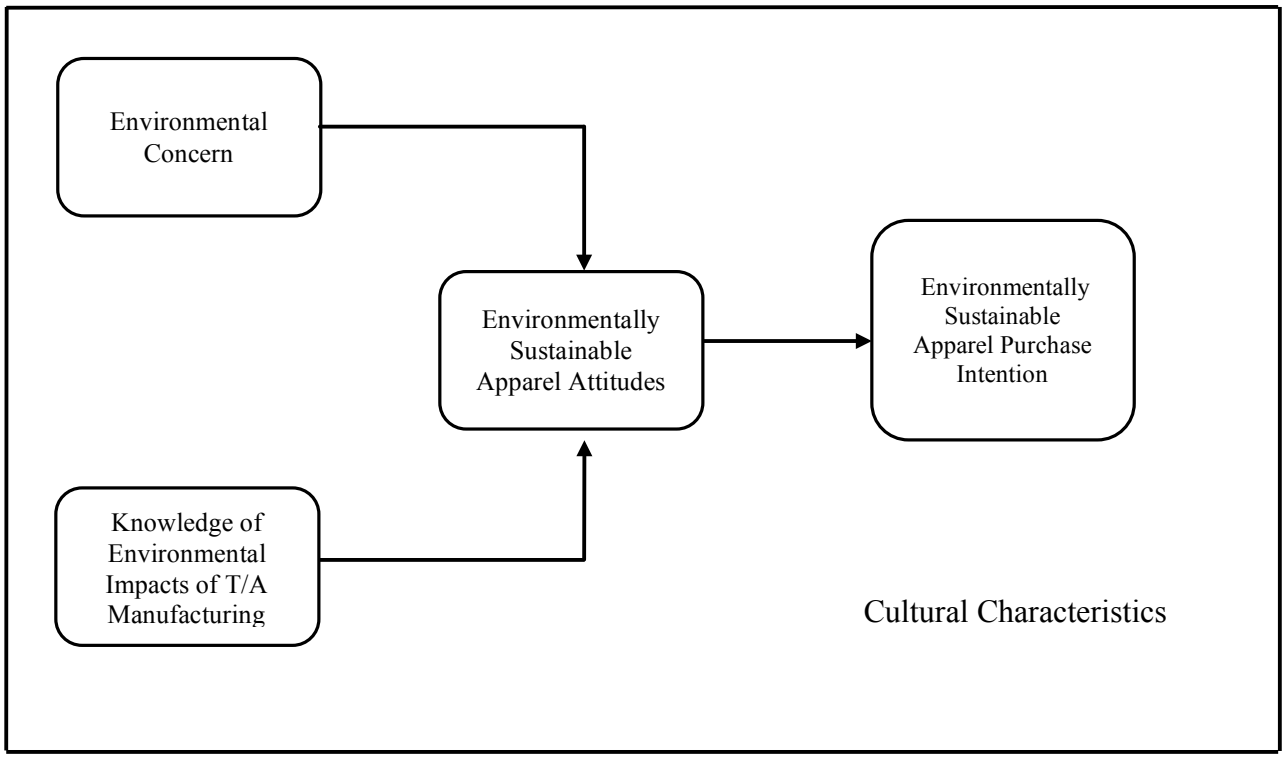

Figure 2.3. The combined model.

Literature Review

Guided by TRA and Hofstede's cultural dimensions, this section of the chapter reviews literature associated with the study's key variables, focusing whenever possible on Kuwaiti consumers. The section begins with an overview of Kuwaiti cultural characteristics, within the context of Hofstede’s cultural dimensions. The average Kuwaiti consumer is examined, drawing

from past literature regarding cultural characteristics of Kuwaitis, their proclivity (or lack thereof) towards environmentally conscious consumption. These social factors pertaining to Kuwait will be discussed within a theoretical and historical context, drawing upon Hofstede's model of cultural dimensions for the theoretical portion, and relying on studies by various researchers who have measured the past behaviors of Kuwait consumers in scientific quantitative and qualitative studies. This section of the chapter also examines the factors that generally lead toward the consumption of environmentally sustainable goods both in Kuwait and other countries, including cultural characteristics, knowledge/beliefs, attitudes, and behavioral intentions.

Kuwaiti Cultural Characteristics

A profile of Kuwait's cultural dimensions. On Hofstede's (2015) reported scale of cultural dimensions, Kuwait scores 90 for power disparity, 25 for individualism, 40 for masculinity, and 80 for uncertainty avoidance. There are no Kuwaiti metrics for either long-term orientation or indulgence/restraint as these are relatively new dimensions in the theory. Additionally, because Kuwait's reported cultural dimensions were marked with an asterisk, these scores may be partially or fully derived from research projects conducted by researchers other than Geert Hofstede, and it is unclear when these scores were originally collected (Hofstede, 2015). Social organization in Kuwait is characterized by its high levels of power disparity between the government and common citizen, as well as the culture's propensity for avoiding uncertainty, implying that it is more traditional for reasons which will be discussed below. It is also a country that is more collectivist and somewhat feminine in nature.

Kuwait is a highly religious country and autocratic in terms of its government. These factors generally bear a positive correlation with countries that have a high degree of power

disparity (Hofstede, 2015). While Kuwait is economically prosperous due to its oil resources, it shares a markedly different history of industrial development compared to Western countries or those found in Asia. For most of its history, the dominant forces in Kuwait have been members of a competitive aristocracy composed of nomadic tribesmen on camelback, followed later by the British Empire. In effect, Kuwait was a feudal country until the middle of the 20th century (Vasil'ev, 2000). It became a United Nations (UN) recognized state in 1961 and with its greater integration into the international community, it began to industrialize and export its petroleum products (Alsalem & Khan, 2010).

However, Kuwait's industrialization and economic integration with the West did not make it more Western. Unlike Western nations where monarchies still exist but are more symbolic in nature and the political power rests in the hands of an elected parliament (Casey, 2007), many holdovers of Kuwait's feudal era remain, including autocratic rule and what is essentially a social caste system based on ethnicity, religion, and tribal affiliation. This type of autocratic rule is distinctly feudal in that power is hereditary and those who are not a part of the royal family are not eligible to dictate public policy. Kuwait does possess a parliament, although this institution is symbolic in nature given the fact that the country's ruler, who holds the title "Emir," has the ability to overturn any policy enacted within this parliamentary congress (Sabah, 2001).

Because the political structure of Kuwait has remained the same for a long period of time, the society has also remained in stasis. Thus, the state of Kuwait has an extremely high score for power distance, despite the fact that it has a high GDP per capita. According to Hofstede (2015), more political freedom within a country generally translates to greater wealth and a higher per capita GDP since the citizens have greater economic opportunity. The more common trend seen

throughout the world is that high power distance is negatively correlated to GDP per capita due to high degrees of wealth disparity developing via cronyism and other economic limits placed on citizens (Hofstede, 2001).

Regarding the aforementioned castes, Kuwaiti society is composed of native citizens who comprise about 30% of the population and immigrants from other Arab and South Asian countries such as Pakistan and India (Casey, 2007). Arab immigrants generally hold professional jobs in Kuwait while South Asians work as laborers on the country's numerous construction projects. Broadly speaking, this creates a pyramid-style social hierarchy where the ruling family is positioned at the top of the country as heads of state, followed by native Kuwaiti citizens, then Arab immigrants, and finally ending with South Asians who have the least power and are in a position of severe income inequality compared to the rest of the population (Sabah, 2001). This is indicative of a high degree of power disparity, where a small population at the very top of the hierarchy wields considerably greater power than the rest of the population—particularly when compared to those situated at the bottom (Hofstede, 2015).

High degrees of religiosity in Kuwait likely affect many of Hofstede's cultural dimensions, although Hofstede does not make these direct links. Religious law in Kuwait is state-mandated and there is no separation of religion and state. The state religion is Islam, and the vast majority of the population, and 99.9% of all Kuwaiti citizens, are Muslims ("Kuwait," 2015). Given the homogeneous nature and the institutional prevalence of the Islamic religion, the country strongly manifests Islamic mores which traditionally emphasize modest dress where women obscure their physique with long, loose garb and don the *hijab,* a traditional head covering. Men are also expected to dress modestly, with flamboyant or revealing clothing being generally frowned upon (Sabah, 2001).

The strong horizontal and vertical cultural pressures lead to a society that has a high score (80) for uncertainty avoidance (Hofstede, 2015). In other words, Kuwaitis do not take many risks and they do not tend to cross boundaries in terms of what behaviors typically viewed as "socially acceptable." Islam is a religion with strong recommendations for socially acceptable behavior and governments that have policed social conduct in the Persian Gulf have traditionally ranged between puritanical or otherwise highly conservative adaptations of theologically-derived social laws (Ohan, 2012). Furthermore, due to the aforementioned lack of separation between religion and state, the fact that Islamic law is state mandated also places a strong legal disincentive for people to make innovations on the existing culture (Casey, 2007).

Ostentatious consumption in Kuwait. Kuwait's oil economy and the years of high oil prices of well over $100 USD per barrel bolstered the standard of living of the average Kuwaiti citizen ("U.S. crude oil," n.d.). Only recently, with large declines in the price of oil due to a multitude of political and economic factors has Kuwait seen any economic slowdown. Kuwait has one of the largest GDP's per capita in the world at slightly more than $79,000 USD per year (Kuwait Central Statistical Bureau, 2005). The generation of capital in Kuwait following years of highly profitable oil trade, as well as strong Kuwaiti currency (1 Kuwaiti Dinar = 3.27 USD) has created a consumer market for Western luxury goods, especially apparel. This influx has changed the face of Kuwaiti society away from the traditional, austere conventions of conservative Islam with a shift towards more of a consumer culture like that seen in the West. However, despite these changes, cultural adherence to religious rules of modesty stand firm (Al-Mutawa, Elliott, & Nuttall, 2014).

Consumer culture in Kuwait has evolved into a type of consumption behavior which Riquelme, Rios, & Al-Sharhan (2001) have characterized as "ostentatious consumption."

Ostentatious consumption is when people buy products in order to demonstrate social rank and accomplishment. In Kuwait's highly stratified society, consumer items are increasingly being used in order to signal to other members of society where they stand relative to one another on the social ladder. This is an interesting development given the description by Hofstede (2015) that sees Kuwaiti society as noncompetitive and collectivistic. Ostentatious consumption is performed with the intention of displaying dominance through showcasing the consumer's individuality. The consumer signals that they dictate the parameters of their own presentation (within boundaries, of course), and this is often accomplished through consumer goods such as apparel or automobiles (Riquelme, Rios, & Al-Sharhan, 2001).

It is possible that Hofstede's (2015) metrics have failed to evolve with Kuwaiti society concerning individualism and collectivism. It would appear that there is some evidence that suggests that Kuwaitis are becoming more individualistic and more competitive as consumer culture takes hold there. However, the status-seeking behavior that is embodied by this ostentatious style of consumption does indeed demonstrate that Kuwait is a stratified society with a high degree of power distance between the members of that society, and so Hofstede's theory is corroborated in part by the existence of ostentatious consumption in Kuwait.

Specifics on Kuwaiti national fashion. Marjorie Kelly (2010) traveled to Kuwait to study fashion trends within the country. Kelly noted that there are separate youth cultures in Kuwait which bear a marked contrast in their style of dress and the apparel they buy. This contrast is drawn between students attending the American University of Kuwait (AUK) and Kuwait University (KU). Students from AUK tend to be students who attended private secondary schools in Kuwait where English was taught as the primary language. This type of exposure has created a more Westernized individual who will be less likely to don traditional dress and more

likely to wear clothing that is typically seen on the streets of Western countries. Students from KU, on the other hand, are thought to be more culturally Arab and adhere to more traditional styles of dress as they typically did not undergo the same type of Westernized training in their youth.

These traditional styles of dress include classic Islamic garb, such as the *abaya*, which is a long, black robe that is common to the Arab Gulf region. Oftentimes, this robe will cover all but the hands and eyes of the wearer. Other traditional dress includes the *hijab,* which is a scarf that is wrapped around the head of the wearer but exposes her face. The *hijab* is worn with loose clothing that is meant to obscure the figure of the body but is commonly decorated, unlike the solid black *abaya (*Akou, 2007). These styles of dress have both pre-Islamic and Islamic roots. While Islamic holy text does not explicitly call for any style of female dress, there are religious commentaries, called *hadith*, which suggest how females should dress, and various forms of cultural reinforcement have turned the *hijab* and *abaya* into default styles of dress for many Kuwaiti women (Gokariksel & Secor, 2010).

Students represented by the more Westernized AUK population are more prone to wearing Western style clothing, such as jeans and t-shirts. The *abaya* is rare but the *hijab* may be common amongst students at AUK. AUK students are said to be a part of the "macroculture," that is, they are a product of a globalized world which blends together multiple cultural and ethnic styles (Kelly, 2010). Students from KU represent the Kuwaiti national culture, still relatively untouched by the forces of globalization as evidenced by their closer adherence to Kuwaiti and Arab tradition (Akou, 2007).

KU, perhaps ironically, is known to have students who tend more towards traditional styles of dress and who also are more ostentatious in their presentation, donning what many may consider to be gaudy displays of jewelry (Kelly, 2010). This contrasts with other points in the literature which has made a positive association between religious piety and modesty. According to Riquelme, Rios, & Al-Sharhan (2001), ostentatious consumption has become more popular as Western influence has grown, but the most Westernized amongst Kuwaiti youth are evidenced to dress the least ostentatiously (Kelly, 2010).

The key similarity between both groups, however, is their adherence to modest dress. 'Modesty' implies that dress does not aid in sexual stimulus of the opposite gender (Akou, 2007). AUK students tend more towards dressing comfortably and in a way that is practical, although they still tend to wear looser fitting clothing that is not form-fitting. Neither students in the KU or AUK sets tend towards exposing their skin with attire like a bare midriff or open back. (Kelly, 2010).

The demographic and geographic peculiarities of Kuwait also create unique fashion conditions in the country. Kuwait is small in terms of geography and its native population. There are only about 855,000 native Kuwaiti citizens who reside in Kuwait and the geographic area, which is about the size of the US state of New Jersey, is also small. Many that venture outside will encounter at least several people they know (Kelly, 2010). This also creates a great deal of competitiveness that is not accounted before by the aforementioned Hofstede model (2015). The competitiveness comes out in a trend for individualized clothing whereby Kuwaitis pay a premium in order to have clothing tailored specifically for them with custom designs and embroidering. The demand for uniqueness in a largely homogeneous and compact population is

the driving force behind the willingness for Kuwaitis to pay for this type of clothing (Al-Mutawa, Elliott, & Nuttall, 2014).

Furthermore, because it is usually hot in Kuwait because it is under the desert sun, clothing types are limited compared to countries where there are multiple seasons. Thus, people often wear the same types of clothing year round which also drives demand for innovation within a rather limited frame of available seasonal wear (Kelly, 2010). The heat in Kuwait naturally induces to sweat far more than in other countries, which means that clothing wears out far faster than in other parts of the world and it is thus disposed of in a shorter time frame. Textile waste is the largest form of solid waste that fills Kuwaiti landfills because there is not a market for secondhand clothing in Kuwait and clothing is thrown away at a fast pace (Alhumoud & Al-Kandari, 2008).

Environmental Concern

Altruism within the context of environmentalism describes a social behavior where environmental concern comes out of a desire to protect the health of other people close to an individual, especially family members. Altruism also entails a desire to protect future generations from pollution. Environmental concern is described as a "unidimensional construct ranging from unconcerned about the environment at the low end to concerned at the high end, as measured by the new environmental paradigm" (Mostafa, 2009, p. 31). In other words, it describes an attitudinal disposition which is mediated by the beliefs one has about the environment (Mostafa, 2009).

Consumers' Knowledge and Sustainable Consumer Behavior

Knowledge is an important factor within the TRA, thus making education a key component in helping consumers to arrive at an understanding for the needs, costs, and rationale

behind consuming environmentally sustainable apparel (Thompson, Harden, Clauss, Fox, & Wild, 2012). "Environmental knowledge" describes how informed a consumer is about environmental issues, judged by experts in the field. Several studies demonstrate that a penchant for buying sustainable products is largely a function of education level (Kaufmann, Panni, & Orphanidou, 2012; McFarlane & Ogazon, 2011). The main buyers of sustainable apparel in the West are white, college-educated women between the ages of 30 and 50 (Kaufmann, Panni, & Orphanidou, 2012). McFarlane and Ogazon (2011) found that as education increases, so too does the habit of buying sustainable products.

One of the most important methods of teaching sustainability is through the systems thinking strategy. Systems thinking is a strategy where processes are interpreted as a set of interconnected components whereby there is a constant flow of inputs and outputs from each of these parts. Affecting one piece of the system will affect others that bear a relationship with a specific factor (Thompson, Harden, Clauss, Fox, & Wild, 2012).

Systems thinking relates closely to sustainability, as the manufacture of goods that causes pollution problems bears a direct relationship to industrial processes and global supply chains. Sustainability can be achieved when we focus on these separate processes and learn why they are dangerous. However, because every change that is enacted on one part of a system has direct effects on the other parts downstream, systems thinkers must also learn how to compensate for the aftereffects of whatever changes they make (Thompson, Harden, Clauss, Fox, & Wild, 2012).

Within the context of sustainable purchasing, knowledge must first be empowering to help a consumer build the motivation to go out and purchase sustainable goods. The consumer must be able to identify themselves as a component within the broader 'system' that they are

involved in when they make purchase decisions. This means helping them, through the use of media and other educational methods, such as formal schooling, to extend empathy to the people and environmental settings affected by their purchase decisions. (Thompson, Harden, Clauss, Fox, & Wild, 2012). Consumer knowledge has been identified as a barrier to the acquisition of sustainable apparel in that a lack of knowledge prevents consumers from seeing the utility of ESA. Consumers were shown to have a lack of knowledge regarding the life cycles of their apparel purchases, as well as what manufacturing inputs are used in ESA versus non-sustainable apparel (Hiller Connell, 2010).

Consumers' Attitudes towards Environmentally Sustainable Apparel

General attitudes towards environmentally sustainable apparel. Hustvedt and Bernard's (2008) study of the value of labelling for environmentally sustainable apparel products found that the participants were willing to pay the highest premium price for socks that were labelled as organic. Socks that were labeled as non-genetically modified were also given a slightly lower, but still premium price. And, socks that were made from cotton and polylactic acid were expected to be discounted. These findings show that for some individuals, environmentally sustainable apparel invokes a positive attitude from customers who indicated that they were willing to pay more for such products (Hustvedt & Bernard, 2008). This positive consumer attitude for ESA can be deduced from the participants' willingness to pay more for such products.

A study conducted by Koszewska (2013) on Polish consumers, who are only recent consumers of ESA products, revealed several different attitudes toward ESA. The participants in the study were categorized into six different clothing consumer groups. "Ecologically and socially sensitive consumers" accounted for just 16.3% of the individuals surveyed. Other

typologies of consumers used some ecological criteria in selecting clothing, but were less likely to care about the social and ethical implications of clothing. The study also identified two groups of consumers in Poland that were entirely uninterested and unconcerned about the ecological and ethical aspects of apparel. Combined this group represented 40% of the Polish population (Koszewska, 2013). Overall, it can be deduced that just 16.3% of Polish consumers have a strongly positive attitude toward ESA, and upwards of 40% of Polish consumers may have a neutral or potentially negative attitude toward ESA.

Additionally, environmental attitudes are formed out of a multitude of beliefs that a person holds towards the environment. Knowledge about environmental sustainability also affects attitude formation in consumers. Environmentally sustainable products are no exception to the observation that knowledge affects attitude formation about consumer products—a study of the brand American Apparel showed that the consumers who had preexisting knowledge of fair trade apparel appreciated the company more when they saw advertisements for the clothing that featured free trade advocacy. The consumers who had preexisting positive beliefs and knowledge about fair trade also expressed a greater purchase intention and intention to shop from American Apparel in the future (Yan, Ogle, & Hyllegard, 2010).

Perceived consumer effectiveness (PCE). The link between attitudes and behaviors in people is often strong. Perceived consumer effectiveness or PCE is another attitude that is often included in studies of sustainable consumer behavior. PCE is generally defined as the degree that consumers believe their behavior will effectively mitigate environmental problems (Roberts, 1996). As an example, if a consumer believes that their purchase of environmentally sustainable apparel will in fact help reduce the environmental impact of the apparel industry, then that consumer may be more likely to purchase ESA.

One study of American adults reported that PCE explains 33% of the differences in sustainable consumer behavior (Roberts, 1996), which was in line with the findings of previous studies (Antil, 1984; Kinnear, Taylor, & Ahmed, 1974; Webster, 1975). Additionally, it has been shown that the greater the personal belief in the impact of the individual consumer, the more that individual will exhibit behaviors of energy conservation, environmentally responsible purchasing behavior, and environmentally responsible use of products (Balderjahn, 1988). Such results imply that environmentally aware consumers believe that their personal behavior contributes to resolving environmental problems. Therefore, they are more likely to engage in environmentally positive behavior (Hiller Connell & Kozar, 2014).

Consumers' Behaviors towards Environmentally Sustainable Apparel

Having a positive attitude toward environmentally sustainable apparel does not always result in the frequent purchase behavior of ESA products. In Koszewska's (2013) study of Polish consumers, only one out of the six groups, the ecologically and socially sensitive consumer group, was determined to have a strongly positive attitude about ESA. Three additional groups also showed a positive attitude toward ESA in some regards, but despite this positivity none of these additional groups actively participated in ESA purchase behavior. These three consumer groups reported preferring natural fibers, but only one consumer group included participants who habitually checked for eco-labels and eco-symbols. These findings show that only the ecologically and socially sensitive consumer group actively participated in ESA purchase behaviors by frequently checking for eco-related labels. This group only accounted for 16.3% of the total number of Polish consumers surveyed (Koszewska, 2013).

Tangl (2010) identified a similar consumer group among Austrians, who were labeled as "heavy users" by the study. The heavy users group totaled 20% of the Austrian population, and

consumed 66% of the organic products sold. In addition, Tangl also calculated that organic cotton had increased its worldwide turnover by 63% in 2008 when compared to the previous year, but despite this drastic increase, the share of organic cotton at world production was still below 1% at the time of the study (Tangl, 2010).

In general, behavior is considered the real-life and purposeful actions of individuals or groups that is derived from their values and attitudes. Specifically, consumer behavior is the behavior that occurs when searching for, purchasing, using, evaluating, and disposing of various products and services meant to meet the consumer's needs. Environmentally sustainable clothing consumption is the acquisition, storage, usage, maintenance, and discarding of clothing in a way that is better for the environment than mainstream clothing consumption. Environmentally sustainable clothing consumption is intended to create less pollution and waste, as well as to consume less natural resources (Hiller Connell & Kozar, 2014).

Acquisition behavior. The acquisition behavior of environmentally sustainable clothing involves acquiring clothing that is designed with certain attributes that are better for the environment. This can include clothing that is made from environmentally friendly fibers, like organic cotton, hemp, or recycled fibers. Other preferable attributes include clothing that is made using environmentally friendly processes like closed loop manufacturing, and a reduction in the use of toxic dyes and other harmful chemicals. Or, it could refer to the design of the garment, if it was designed in a way to reduce personal consumption. Additionally, consumers can acquire clothing through environmentally friendly sources, like thrift stores and vintage shops where the clothing is second-hand. Finally, consumers limiting the amount of clothing purchased may also be considered environmentally sustainable acquisition behavior (Hiller Connell, 2005; Hiller Connell & Kozar, 2014).

According to Bae (2012), the people who consciously go out of their way to buy environmentally sustainable apparel are a small fraction of the overall consumer base in the United States. A 2011 survey found that 76% of American consumers do not put any thought into how their clothing was made, although 66% of these consumers stated that they would experience some form of anguish or regret should they find out that their apparel was produced unethically. Of the 66% who would elicit an emotional response, 54% said they would not take any action to correct their behavior in the future, while 12% stated they would commit to changing their buying habits.

Environmentally sustainable discard behavior. The Council for Textile Recycling reported that around 15% of textile waste entering solid waste streams is recovered, and reused or recycled by the textile recycling industry. Out of the 15% that is recovered from solid waste, 35% is resold as second-hand clothing, 33% is turned into fibers, 25% is reused as rags, and 7% is beyond usability and sent to landfills (Council for Textile Recycling, 2016; Hiller Connell & Kozar, 2014). A large majority of clothing and textiles, 85%, is destined to end up in landfills. Every year, consumers in the United States discard 70 pounds of clothing into landfills (Council for Textile Recycling, 2016).

Several studies have researched environmentally sustainable clothing discard behavior. When consumers have finished with a piece of clothing, donating the item to charity, friends, or family are common ways of discarding the garment (Goworek, Fisher, Cooper, Woodward, & Hiller, 2012; Daneshvary, Daneshvary, & Schwer, 1998; Koch, & Domina, 1997). Other studies have also found that some consumers use old clothing as rags (Koch, & Domina, 1997).

Influences on ESA consumption. A variety of variables may affect consumption behavior. These factors can be both internal and external. Previous studies have categorized

these influencing variables into four major categories, which include: personal capabilities, attitudinal factors, contextual forces, and routine. Personal capabilities may include such factors as skill sets, knowledge, and capacities, all of which may influence the individual's consumption decisions and behavior (Hiller Connell, & Kozar, 2014). Attitudinal factors could include the individual's values, beliefs, and attitudes. A majority of research on consumers' ESA purchasing behaviors has focused on knowledge and attitudes as the contributing variables to the consumption of ESA (Hiller Connell & Kozar, 2014).

Barriers to purchasing environmentally sustainable apparel. Price is a well-documented barrier to the purchase of sustainable goods in many parts of the world. Generally speaking, pollution is cheap for most manufacturers because handling waste safely requires costly handling, processing, and disposal facilities and procedures. Manufacturers who pollute do not need to spend capital on processing and disposing of their waste products. These low production costs translate to lower consumer costs. Meanwhile, organic and other sustainable methods tend to carry a price tag premium since the production of those products often circumvents what is the most cost-effective method on the market. In essence, production becomes a race to the bottom to see who can produce the cheapest item, and this leads to environmental damage (Hustvedt & Dixon, 2007).

Being an eco-conscious consumer implies that one is willing to pay a premium price for sustainably-produced goods (Kang & Kim, 2013). However, for those consumers who do not identify as eco-conscious, there exist psychological barriers that inhibit them from considering sustainably produced goods. One study demonstrated that a reason why many consumers did not buy sustainable apparel was because they believed it would not positively add to the way that their peers perceive them. Thus, they were not willing to pay the premium on sustainable apparel

or forgo spending on products that they did believe would add to their popular perception (Ha-Brookshire & Norum, 2011; Shen, Wang, Lo & Shum, 2012).

Kuwaiti consumers consume for the purpose of social dominance and are thus largely insensitive to price relative to other populations. Kuwaiti consumers view the brand and clothing genre as an extension of their status and, if they do pay a price premium, it is to advance their social rank rather than to help the environment (Riquelme, Rios, & Al-Sharhan, 2011). Because of this, price will be less of a factor in whether or not Kuwaitis choose to purchase ESA.

Motivating consumers to buy environmentally sustainable apparel. Motivation for the purchase of sustainable apparel is largely psychological. Kaufmann, Panni, and Orphanidou (2012) define multiple conditions stemming from psychological factors that must be met before a sustainable purchase is made. The first psychological factor is the degree to which the consumer believes that their purchase is going to contribute towards the cause of environmental sustainability. The second factor is the existing education in the country. As has been stated before, environmental degradation is a slow process that involves many complex systems. Thus, some scientific training is helpful in understanding how these gradual changes could manifest in future decades. The third factor is a personal sense of altruism that one feels for protecting others.

Should the consumer genuinely believe that they are making an impact with their purchase decision, they will be much more likely to buy a green product – perceived consumer effectiveness. The PCE of an individual consumer can significantly influence the degree to which he or she will purchase sustainable apparel (Hiller Connell & Kozar, 2012).

Factors affecting Kuwaiti consumers' sustainable purchase behavior. Very little research examining sustainable consumption within Kuwait exists. A study that investigated

Kuwaiti consumers' proclivities towards purchasing sustainable consumer products (Mostafa, 2009), found that, out of 418 Kuwaitis, about 45% of them identified as "true green" consumers, meaning that they manifested preferences for environmentally sustainable goods, while only 22% did not show any preference for environmentally sustainable goods. The rest were somewhere in between. The metrics used to survey Kuwaitis in Mostafa's (2009) study were: 1) altruism, 2) environmental concern, 3) environmental knowledge, 4) skepticism towards environmental claims, and 5) environmental attitudes. Mostafa's (2009) study was unique because it was the first one to date which measured knowledge, beliefs, and attitudes towards the sustainable products within the country of Kuwait. As far as is known, there is no published research focused on the consumption of ESA within Kuwait.

Conclusion

The review of past literature has built a partial profile of the sustainable consumer in Kuwait. For the most part, they tend towards a strong display of ethics while also primarily consuming for the sake of ostentatious consumption. We also saw in Mostafa's study (2009), that most (about 80%) Kuwaiti consumers professed a preference towards making purchase decisions based on at least some criteria of green behavior. However, we did observe a contradictory report on the part of Baqer (2012), which found that Kuwaitis were not inclined towards green purchases.

Other contradictions in the literature relate to Hofstede's theory and ostentatious consumption behaviors. Ostentatious consumption is generally associated with strong levels of individualism and competitiveness (Hofstede, 2001). However, Hofstede's dimensions depict Kuwaiti culture as slightly uncompetitive, more feminine, and collectivistic with a high level of

uncertainty avoidance, but the unknown date of these dimensions make it difficult to judge their accuracy to current Kuwaiti culture. Other research indicates that Kuwaiti society is evolving and shifting towards a society that is more competitive and more individualistic. Because the Hofstede model is relatively static compared to local examinations of the population, it is likely that the Hofstede model is outdated in some regards to Kuwaiti culture.

It is worth mentioning that there are many cultural nuances and peculiarities that are not captured by measures like the Hofstede model. Hofstede's model is a bold attempt at universalizing culture through metrics. It paints broad brush strokes in an effort to draw humanity together from disparate regions of the world on the basis of cultural categories created and discussed by Hofstede himself. Admittedly, his model does not work well for a detailed discussion of culture, but rather it is used as context around which to frame discussion of culture (Jones, 2007). It is for this reason that Hofstede's culture cannot account for all of the variables in what is a highly dynamic Kuwaiti culture filled with, like perhaps all cultures, its own subgroups and countercultural trends that may be reflected by a significant minority of the country (Jones, 2007).

In this literature review, we also examined the many motivating factors that compel consumers to buy sustainable products. Knowledge, altruism, attitudes, general concern for the environment, perceived personal benefit, and skepticism towards retailers were all shown to be statistically significant factors which affected consumers' decisions to buy environmentally sustainable goods. Generally speaking, the more educated a society is, the more likely it is to buy sustainable goods since it is able to perceive the long-term effects of unsustainable practices on the environment far more clearly.

One of the dangers of environmental degradation is the slow rate at which it occurs. Because it is such a gradual process that is largely undetectable to the naked human eye, the damage accumulates until it is often too late for meaningful action to reverse the damage that is done. This is one of the reasons why planning for sudden disaster as well as gradually taking steps to enforce sustainable practices is so important for a society. Another unfortunate reality regarding sustainability is that it is simply cheaper to pollute. Because there is such a profit incentive in the short-term for polluting the environment, it is more likely that producers will pollute given the chance. Thus it is important that both social and governmental action acts in order to prevent the effects of capitalism from getting out of control.

Price is also a strong incentive that deters consumers from buying sustainably, as sustainable goods usually carry with them a price premium as a result of the fact that they are more expensive to produce. So, on the other end, it is also possible to say that the reason why producers pollute is simply due to the fact that society views the lower price of non-sustainably produced goods to be an appropriate trade-off for the fact that the products they purchased resulted in pollution, or they simply do not make this connection. Profit-seeking firms may simply be responding to consumer demand and may not be able to afford to produce goods for what seems to be a relatively small market niche of consumers who purchase sustainable goods.

Chapter 3: Research Method

This chapter covers the rationale and methodology of the mixed methods approach that was applied to the investigation of knowledge, attitudes, and beliefs towards environmentally sustainable apparel among female Kuwaitis. First, the population of interest and the research sample is described, including a profile of the sample as well as the rationale behind their selection. Next, the quantitative component of the study is explained, followed by the qualitative component. In each section, the strategies and tactics to be used in sample selection, data collection, and data analysis are explained in detail.

The main strength of using quantitative methods in this study is that they provide a discrete method of comparison for the opinions that are held by Kuwaitis with regards to sustainable apparel; and, generally speaking, this provides a powerful insight into empirical reality with regards to Kuwaiti consumer behavior. There are weaknesses to this methodology, however—primarily, there will not be a targeted sample of frequent apparel shoppers. Furthermore, another weakness of quantitative research is that it does not provide a holistic representation of what it measures. There are many aspects to human opinions that cannot be singled out through quantitative means alone, and so it is often helpful to use qualitative methods in order to accurately gauge that which is not easily measured through quantitative strategies.

The benefits to using qualitative methods in this research is that follow-up questions are possible, which enable the researcher to delve deeper into the answers provided by interviewees regarding knowledge, attitudes, and behaviors. With a qualitative interview, the interviewer can also observe the subjective qualities of an interview subject. The negative aspect of qualitative

research is that it is highly subjective and cannot be quantified easily, thus removing the statistical power that comes with analyzing quantitative trends (Creswell, 2013).

Population of Interest

This study targets Kuwaiti female consumers over the age of 18 and living in multiple cities throughout the country. Females were chosen due to the fact that they are the primary purchasers of apparel products in Kuwait. The age 18 was selected as the lower limit for survey-takers because this study aims to take into account only the opinions of adults, as they are more likely to have their own money and make their own purchase decisions.

Research Sample and Sampling Strategy

As was previously stated, the study's sample consisted of Kuwaiti female adult citizens over the age of 18. For the quantitative portion, this study utilized a snowball sampling strategy. Surveys were distributed by first emailing the researcher's personal network with a request to take the survey via the Qualtrics software platform. Upon completion of the survey, the researchers requested the respondents forward the survey URL to their Kuwaiti female friends and family through email and social media. Reminders were sent to the participants to complete the survey through both email and the WhatsApp software platform. Participants were given an incentive to complete the survey of the chance to win a $100 gift card to a local mall for participating in the study. In total, there were 528 surveys collected. Of these, 61 were from males, 27 were non-Kuwaitis, 1 was under the age of 18, and 203 did not fully complete the survey, which may have been due to participants' impatience and desire to complete the survey

quickly. Thus, 235 surveys were fully completed by Kuwaiti females over the age of 18, and these surveys alone remained for inclusion in data analysis.

The participants for the qualitative portion of the study were pulled from the same sample as those who took the quantitative survey. More specifically, at the conclusion of the survey, respondents were asked if they would be willing to be interviewed further about the topic. From the respondents who agreed to further participation (n=62), the researcher randomly selected participants by utilizing an online random number selector and then contacted those that were selected. Some of the participants selected for the interview portion of the study later declined or did not respond. Data saturation was used to determine when enough interviews had been conducted (Romney, Batchelder, & Weller, 1986; Guest, Bunce, & Johnson, 2006). Because research on the number of interviews needed to reach data saturation varies with Romney, Batchelder, and Weller (1986) suggesting as little as four individuals needed for accurate information, and Guest, Bunce, and Johnson (2006) suggesting twelve interviews, the final determination of data saturation was based on the researcher's judgment of when data saturation had been reached (the interviews were no longer revealing new information), and the interview process was then ended. A total of nine participants were interviewed for the qualitative analysis portion of the study.

Statement on the Use of Human Subjects

This study utilized an online survey and semi-structured interviews to examine the knowledge, beliefs, attitudes, and behavioral intentions of female adult Kuwaiti consumers regarding environmentally sustainable apparel. Given these circumstances, the study's methods

were reviewed by the Kansas State University Institutional Review Board (IRB) under the US Department of Health and Human Services (HHS), and the study was given full approval to conduct the research. All individuals involved in the study followed US Federal and Kuwaiti national guidelines in the communication with those surveyed as well as in data collection and recording practices.

Data Collection

For the quantitative phase of the study, data was collected using the Qualtrics software platform. This software allows for respondents to complete surveys online and register their responses for use by the researcher. It also allows for the individuals surveyed to complete the survey within their own homes and not have to travel in order to deliver the completed survey. For the qualitative phase of the study, interviews were conducted over the Internet through the Zoom software program. Recording software was used to capture the audio and video of each interview. Like Qualtrics, the use of Zoom to interview subjects allowed the researcher to obtain data from subjects without needing to travel.

Phase One: Quantitative Data Collection Instrument

This study utilized five different, pre-established scales to measure general cultural characteristics, environmental concern, knowledge about environmental issues in the apparel industry, attitudes towards environmentally sustainable apparel, and environmentally sustainable apparel purchase intention. The Values Survey Module (VSM) 2013 Scale (Hofstede, & Minkov, 2013) was utilized to measure Kuwaiti cultural characteristics. To measure environmental concern, the study utilized the New Ecological Paradigm scale (Dunlap, Van Liere, Mertig, &

Jones, 2000). The Environmental Sustainability Apparel Knowledge (ESAK) Scale was utilized to measure knowledge about environmental issues related to textile and apparel manufacturing. The ESAK scale is currently under development by Hiller Connell and LeHew. To measure attitudes towards environmental sustainability, a scale developed by Perrachio and Meyers-Levy (2004) was used. Finally, to measure behavioral intentions, the study selected a scale by Hyllegard et al. (2012). The respondents' demographic data, including age, gender, income, and education was also recorded.

In addition to the above scales, two screening questions were provided at the beginning of the survey—one which asked respondents' gender and the other asking if respondents were Kuwaiti citizens. This allowed for easier sorting of data as well as the ability to discard all of the questionnaires where either one of these two questions are answered as "male" or "non-citizen."

Cultural characteristics. Due to the nature of the quantitative portion of the study, Research Question One is rephrased to, "What are the cultural characteristics embodied by female Kuwaiti nationals?" To measure cultural characteristics as a part of subjective norms, this study utilizes the VSM scale (Hofstede, & Minkov, 2013), developed by Geert Hofstede, the creator of Hofstede's Theory of Cultural Dimensions. This is a survey that is meant to provide researchers with data in order to determine where a sample falls on the six cultural dimensions that were defined by Hofstede (2001) and discussed in the previous chapter.

Beyond basic demographic questions (which were not utilized in this study), the VSM scale has three sections. The first section features 14 questions which are responded to by registering a number on a 5-point Likert scale with endpoints of "Of very little or no importance" and "Of utmost importance." The questions in the first section are personal questions about the respondent's views on his or her workplace and friendships. The second section features six

questions regarding personal levels of happiness, health, patriotism, and how often they witness contradictory behavior coming from superiors. These questions are also answered using a 5-point Likert scale with variable endpoints depending upon the question. The third section features four questions regarding ethics and the respondent's view of authority. These questions are also answered using a 5-point Likert scale with endpoints of "Strongly disagree" and "Strongly agree." See Appendix A for the complete scale and response categories. The Cronbach's Alpha reliability ratings for the VSM scale were determined by Hofstede (2013) for Power Distance Index ($\alpha = 0.842$), Individualism Index ($\alpha = 0.770$), Masculinity Index ($\alpha = 0.760$), and Uncertainty Avoidance Index ($\alpha = 0.715$).

Environmental concern. The New Environmental Paradigm (NEP) scale by Dunlap, Van Liere, Mertig, and Jones (2000) measures environmental concern, and was used in this study to measure general environmental concern/beliefs amongst Kuwaiti consumers. The NEP scale was created by Riley Dunlap and K.D. Van Liere in 1978, but revised in the year 2000 by Dunlap et al. (2000). The scale features 15 questions, each which ask the respondent questions regarding his or her beliefs about the environment and human-environment interactions. The NEP's 15 questions are answered via a 5-point Likert scale with endpoints of "Strongly disagree" and "Strongly agree." See Table 3.1 for all of the NEP scale items. See Appendix B for the complete scale and response categories. The scale has had its validity and reliability verified through previous studies (Hawcroft & Milfont, 2010). In a meta-analysis of the NEP scale, researchers found that 39 out of 78 studies which used the NEP scale in the past had a Cronbach's alpha reliability score less than 0.69, which suggests that the scales were not reliable, but the other half of the sample did have acceptable reliability and validity (Hawcroft & Milfont, 2010).

Table 3.1

New Environmental Paradigm Scale

Scale Item
1. We are approaching he limit of the number of people the Earth can support.
2. Humans have the right to modify the natural environment to suit their needs.*
3. When humans interfere with nature it often produces disastrous consequences.
4. Human ingenuity will insure that we do not make the Earth unlivable.
5. Humans are seriously abusing the environment.
6. The Earth has plenty of natural resources if we just learn how to develop them.*
7. Plans and animals have as much right as humans to exist.
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.*
9. Despite our special abilities, humans are still subject to the laws of nature.
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.*
11. The Earth is like a spaceship with very limited room and resources.
12. Humans were meant to rule over the rest of nature.*
13. The balance of nature is very delicate and easily upset.
14. Humans will eventually learn enough about how nature works to be able to control it.*
15. If things continue on their present course, we will soon experience a major ecological catastrophe.

* Designates items to be reverse coded.

Knowledge about environmental issues related to textile and apparel manufacturing. The study measured respondents' knowledge about apparel and textile related environmental sustainability issues by using the Environmentally Sustainable Apparel Knowledge (ESAK) scale by Hiller Connell and LeHew (under development). It features 24 questions to assess an individual's knowledge about the environmental impacts associated with the materials and processes associated with apparel manufacturing. See Table 3.2 for all the scale items. See Appendix C for the complete scale and response categories. Initial applications of the scale indicate a high reliability rating of 0.85 (Reiter, 2015).

Table 3.2

Environmentally Sustainable Apparel Knowledge Scale

Scale items
1. Globally, more agrochemical insecticides are applied to cotton than any other major crop. (True)
2. Growing enough cotton to make a pair of jeans (weighs 1.5 pounds) requires approximately 55% more water than what is needed to grow wheat for a loaf of bread (weighs 2 pounds). (True)
3. The raw materials used to manufacture polyester and other synthetic fibers are derived from nonrenewable resources. (True)
4. The raw material needed to make virgin polyester and other synthetic fibers is abundantly available. (False)
5. Transforming the raw materials into polyester fibers is more energy intensive than cultivating cotton fiber. (True)
6. Though it takes little to no water to produce synthetic fibers, it consumes large amounts of energy. (True)
7. Chemicals used in textile processing can remain in aquatic systems for fifty or more years. (True)
8. As much as 20% of ALL industrial water pollution comes from dyeing and finishing of textiles. (True)
9. Transforming cotton fiber into denim fabric is more energy intensive than manufacturing jeans. (True)
10. Many of the chemicals found in textile dyes are known and/or suspected carcinogens. (True)
11. Chemical pollutants are produced during the manufacturing of textiles. (True)
12. The manufacturing of clothing uses large amounts of energy. (True)
13. Minimal fabric is wasted is wasted in the manufacturing of clothing. (False)
14. A garment's fiber type affects the amount of greenhouse gases emitted into the atmosphere during home laundering (washing and drying). (True)
15. Home laundering (washing and drying) of a 100% cotton t-shirt will have less of an environmental impact than the initial production of the cotton fiber and the manufacturing of the shirt. (False)
16. In an industrial landfill, a 100% cotton garment will biodegrade within one or two months. (False)
17. A majority of garments thrown away by consumers are diverted from landfills and recovered for reuse or recycling. (False)
18. The production of textile and apparel products uses minimal amounts of water. (False)
19. Though natural fibers such as cotton and wools are processed, dyed, and cleaned with large amounts of chemicals, they are still safe to the environment and people. (False)
20. The use of larger quantities of natural fibers will significantly decrease energy consumption within the textile industry. (False)

21. Which of the following consumes the most energy during fiber production: cotton or polyester? (Polyester)
22. Which of the following consumes the most water during fiber production: cotton or polyester? (Cotton)
23. Which consumes the least energy when drying in a home dryer: a load of 100% cotton items or a load of 100% polyester? (The load of 100% polyester)
24. If placed in a home compost system, which would biodegrade faster: a 100% cotton t-shirt or a 100% polyester t-shirt? (A 100% cotton t-shirt)

Attitudes toward environmentally sustainable apparel. Attitudes toward environmentally sustainable apparel were measured using the 8-item instrument by Perrachio and Meyers-Levy (1994). These items are assessed using a 5-point Likert scale with the endpoints being "Strongly disagree" and "Strongly agree." This scale's validity was assessed with three pre-tests in the original study by the authors, and its reliability was measured at 0.89, which suggests that it is a reliable scale. See Table 3.3 and Appendix D for scale items.

Table 3.3

Attitudes toward Environmentally Sustainable Apparel

Scale items
1. I would not purchase an environmentally sustainable apparel product
2. Environmentally sustainable apparel is a mediocre product
3. Environmentally sustainable apparel is a high quality product*
4. Environmentally sustainable apparel is a poor value product
5. Environmentally sustainable apparel is a well- made product*
6. Environmentally sustainable apparel is boring
7. Environmentally sustainable apparel is a worthwhile product*
8. Environmentally sustainable apparel is easy to find*

* Indicates items to be reverse coded.

Environmentally sustainable purchase intentions. The study measures consumers' intentions to purchase environmentally sustainable apparel through a two-item scale adapted

from a survey by Hyllegard et al. (2012). The scale items are assessed using a 5-point Likert scale with the endpoints being "Strongly disagree" and "Strongly agree." This scale has a Cronbach's alpha reliability rating of 0.90 (Reiter, 2015). See Table 3.4 or Appendix E for scale items.

Table 3.4

Environmentally Sustainable Apparel Purchase Intentions

Scale items
1. In the future I intend to purchase environmentally sustainable apparel
2. In the future I intend to tell a friend about environmentally sustainable apparel.

Demographic information. In addition to the above scales, survey respondents were asked to provide demographic information (see Table 3.5). Specifically, they were asked about their age, the length of time that they have lived in Kuwait, their level of education, and their yearly income. See Appendix F for response categories to the questions.

Table 3.5

Demographic Information

Scale items
1. What is your age?
2. Are you a Kuwaiti citizen?
3. How long have you lived in Kuwait? (Years)
4. What is the highest level of education you have obtained?
5. What is your monthly income?

Pilot Test of Survey Instrument

To test the reliability of the modified scales to be used as a part of the quantitative portion of this study, a pilot test was conducted. Adult female Kuwaiti subjects for the pilot test were recruited through social media. Potential participants were contacted via email with a request to take part in a pilot study in order to be eligible to win a $50 gift card. A link to the Qualtrics survey was provided via the email sent to each prospective participant. All of the scale items and demographic questions were included in the survey, as well as an open ended question that requested the respondent provide feedback about the survey and if there were any unclear questions. The pilot study was conducted with 16 women. The data was then analyzed in SPSS version 22.0 Grad Pack and tested for reliability using Cronbach's alpha test. As a result of respondents' feedback the survey was modified to include a definition of environmentally sustainable apparel because the participating women in the pilot study were not sure of the meaning of this term. The definition that was included in the survey was, "Environmentally sustainable apparel is apparel that is produced according to practices which do not result in long-term damages to the environmental and which can eventually be recycled for use in future apparel products or for industrial uses" (Claudio, 2007).

Phase Two: Qualitative Data Collection

The qualitative phase of the data collection process featured in-depth, semi-structured interviews ranging in time up to 60 minutes. The interviews were held over the communication software, Zoom, using both audio and video—both of which were recorded. The interviews were conducted in Arabic. Following each interview, transcripts were made and then sent to the Al Diwan Translation Center in Kuwait for translation into English. This is considered the most reputable and experienced translation center in the country of Kuwait and specializes in Arabic

to English and English to Arabic translations. After the translations were received from the translation center, the researcher reviewed the translations and modified them so that they would be clear to a native English speaker. As compensation for their participation, each participant was offered a $50 gift card to The Avenues mall in Kuwait, which is a very popular Kuwaiti mall due to its central location in the country's capital.

Semi-structured interviews were used as the basis for this qualitative research because it offered the researcher greater versatility with the ability to ask follow-up questions, while still giving the stability of a script. Therefore, if during the course of an interview unexpected answers were given, the researcher could then ask probing questions. Also, because there was still a structure to each interview, the researcher was able to more easily code the data received in the interviews (Merriam, 2009). The theoretical approach that was taken in this research was ethnographic with a focus on the Kuwaiti people and better understanding their attitudes and opinions related to environmentally sustainable apparel. The primary purpose of the interviews was to gain further insight related to the study's research questions. Due to the nature of the qualitative portion of the study, Research Question One is rephrased to ask, "What are female Kuwaiti nationals' perceptions of Kuwaiti culture as a whole?" Overall, the interviews focused on acquiring perspectives from Kuwaiti females about their perceptions of Kuwaiti cultural characteristics, knowledge and beliefs, attitudes, and behaviors as they relate to the purchase of environmentally sustainable apparel. These interviews helped uncover deeper meaning behind why Kuwaitis hold the positions that they do with regards to environmentally sustainable apparel which a survey is inadequate in measuring.

To determine the adequacy and clarity of the questions to be used, a couple of pilot interviews were held that were not included in the interviews considered as a part of the final

data submitted (Merriam, 2009). The pilot interviews were used to determine the general length of the interviews. Additionally, participants were also asked about the clarity of the questions within the interview to make sure that the questions were easily understandable for the target demographic.

A list of interview questions is included in Appendix G. The questions contain a mix of queries regarding the knowledge, attitudes, and beliefs about environmentally sustainable apparel and social issues in Kuwait as they pertain to environmental sustainability and environmentally sustainable apparel environmentalism as well as a more general cultural question. Question 1 is a general question about Kuwaiti culture. Questions 2-6 are general apparel consumption behavior questions. Questions 7, 8, and 9 focus on apparel manufacturing knowledge with regards to ESA. Questions 10-15 are meant to identify attitudes towards ESA. Finally, Questions 16, 17, and 18 ask participants about environmentally sustainable apparel specifically, including environmentally sustainable fashion, brands, and purchase history.

Prior to participating in an interview, every interviewee was asked to sign a consent form which stated that she accepted that the data she provided would be used in the context of a research study. She also had to agree to be audio recorded. These were prerequisites for participation, as the data had to be used in order for the researcher to draw conclusions and to facilitate transcription of important information. The researcher provided a written guarantee of the subjects' privacy, only disclosing the gender, age, marital status, and education level (Merriam, 2009).

The data from these interviews are meant to allow respondents to the quantitative survey to offer more details regarding their knowledge, beliefs, attitudes, and cultural experience with

environmentally sustainable apparel. The interviews thus supplemented the surveys as they focus on the same variables, allowing respondents to offer more detailed responses about the subject and also offering new insights to the researcher into environmentally sustainable apparel in Kuwait that the researcher may have missed during the selection of scales for the survey instrument.

Data Analysis

This section describes the quantitative and qualitative data analyses process, as well as the method by which findings from these two approaches were integrated. See Table 3.6 for the information on the data analyses process for both the quantitative and qualitative research methods. The quantitative analysis proceeded through statistical analysis performed with the help of SPSS version 22.0 Grad Pack, and the researcher employed a variety of different statistical analyses to draw conclusions about the data. The qualitative data was analyzed through a content analysis method. Lastly, the quantitative and qualitative data findings were compared.

Quantitative Data Analysis

Following the collection of the surveys through Qualtrics, data cleansing occurred by looking through the submitted surveys for incomplete or invalid submissions. Invalid submissions were those that had answers filled out in a way that would skew the data (for example, if the respondent answered with '1' on every answer in order to finish it quickly). Data from incomplete and invalid surveys were removed from the data set. A total of 528 surveys were collected. Of these surveys, 61 were determined as invalid because they were completed by males, 27 were removed because they were completed by non-Kuwaitis, 1 survey was removed because it was completed by someone under the age of 18, and 203 surveys were invalid because

the participants did not fully complete the survey. Because of these reasons, a total of 292 surveys were removed from the data set. This left a total of 235 valid surveys in the data set.

After data cleansing, a general analysis using SPSS version 22.0 Grad Pack was conducted. For a detailed look at how the data was analyzed, see Table 3.6. The survey results were analyzed via descriptive statistics (percentages, means, standard deviations, minimums, and maximums) and regression. Regression was used to determine the influence of knowledge about environmental issues related to apparel and textile manufacturing on attitudes about ESA, the influence of the respondents' environmental concern upon their attitudes about ESA, and the influence of respondents' attitudes on ESA on their willingness to purchase ESA. Furthermore, the descriptive statistics of the study including percentages, means, standard deviations, minimums, and maximums were analyzed as a part of an overall statistical analysis when the survey was completed in order to give final conclusions about sustainability and Kuwaiti purchase behavior towards apparel.

The VSM scale has a specific method of analysis, utilizing special equations for the purpose of data analysis (Hofstede & Minkov, 2013) and index calculation for each of the six cultural dimensions. These formulas for index calculation include mean values of predetermined VSM questions and a constant value for each dimension that depends on the nature of the sample. According to Hofstede and Minkov (2013) these constants are chosen by the researcher in order to move the index scores between 0 and 100. However, after consulting with Hofstede via email, because this dissertation study does not include VSM scores from other countries it was determined the researcher was limited in her ability to determine a constant value to add to each dimension's score. Therefore, it was not possible to calculate index scores for each cultural dimension from the VSM data collected from the study's respondents. In order for such a value

to be determined for the six cultural dimensions of Kuwait, future studies incorporating multiple countries (plus Kuwait) will be needed. Such a precedence was set by Akdeniz and Seymen in their 2012 study of Turkish hotel workers.

Therefore, because of the limitations related to analysis of the VSM data, descriptive statistics of the VSM 2013 scale items were calculated and utilized in data analysis. The means and frequencies of the responses to different scale items were calculated in order to determine how each individual scale item reflects on the cultural dimension it is meant to measure. This is further detailed in Chapter Four.

Qualitative Data Analysis Plan

Qualitative data was analyzed through the method of content analysis. The data analysis plan can be viewed in Table 3.6. The interview transcripts were reviewed, and for each interview, specific themes were identified by the researcher after the interviews had been conducted (Creswell, 2013). Themes are an integral part of content analysis whereby the researcher examines the themes and makes a judgment on their contribution to the phenomenon under observation—in this case the study of cultural characteristics, knowledge, attitudes, and behavior as they relate to the purchase of environmentally sustainable apparel. Themes, subthemes, and subcategories were determined by the researcher after a thorough review of the interview transcripts. Themes were categorized as general responses to the proposed research questions. Subthemes were determined based on specific responses given related to the larger themes. Subcategories were specific categories related to each subtheme. All of the interview transcripts were then coded utilizing the coding framework. The academic supervisor of the researcher was consulted on multiple occasions in order to ensure that the codes accurately reflected the data.

Table 3.6

Data Analysis Plan

Research question	Measurement	Data analysis
What are the cultural characteristics of female Kuwaiti nationals? • What are the cultural characteristics embodied by female Kuwaiti nationals? • What are the female Kuwaiti nationals' perceptions of Kuwaiti culture as a whole?	Value Surveys Module Interview questions	• Descriptive statistics (percentages, means, standard deviations, minimums, and maximums) used to determine the characteristics embodied by female Kuwaiti nationals. • Qualitative content analysis through post-interview coding of themes and subthemes used to determine the Kuwaiti cultural characteristics as perceived by female Kuwaiti nationals.
What level of environmental concern is held by female Kuwaiti nationals?	NEP scale Interview questions	• Descriptive statistics (percentages, means, standard deviations, minimums, and maximums) used to determine the level of environmental concern of surveyed individuals. • Qualitative content analysis through post-interview coding of themes and subthemes used to determine the level of environmental concern of interviewed individuals.
What is the level of knowledge held by female Kuwaiti nationals about	ESAK scale	• Descriptive statistics (percentages, means, standard deviations, minimums, and maximums) used to

the environmental impacts of textile and apparel manufacturing?	Interview questions	determine the level of knowledge of surveyed individuals. • Qualitative content analysis through post-interview coding of themes and subthemes used to determine the level of knowledge of interviewed individuals.
What attitudes do female Kuwaiti nationals hold about environmentally sustainable apparel?	Attitudes toward Environmentally Sustainable Apparel scale Interview questions	• Descriptive statistics (percentages, means, standard deviations, minimums, and maximums) used to determine the attitudes of participants toward ESA products. • Qualitative content analysis through post-interview coding of themes and subthemes used to determine the attitudes toward ESA products of interviewed individuals.
To what degree are female Kuwaiti nationals engaged in environmentally sustainable apparel purchase intentions?	Environmentally Sustainable Apparel Purchase Intentions scale Interview questions	• Descriptive statistics (percentages, means, standard deviations, minimums, and maximums) used to determine the participants' ESA purchase intentions. • Qualitative content analysis through post-interview coding of themes and subthemes used to determine the ESA purchase behaviors and intentions of interviewed individuals.
How does environmental concern and the level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing influence attitudes about environmentally sustainable apparel?	NEP scale, ESAK scale, and Attitudes toward Environmentally Sustainable Apparel scale Interview questions	• Correlation analysis used to determine relationships between the variables. • Regression used to determine the type and magnitude of any possible relationships. • Qualitative content analysis through post-interview coding of themes and subthemes used to explore these relationships for interviewed individuals.

How do female Kuwaiti cultural characteristics influence attitudes about environmentally sustainable apparel?	Value Surveys Module Interview questions	• Qualitative content analysis through post-interview coding of themes and subthemes used to determine the relationship between perceived Kuwaiti cultural characteristics and ESA attitudes.
How do female Kuwaiti attitudes about environmentally sustainable apparel influence environmentally sustainable apparel purchase intentions?	Attitudes Toward Environmentally Sustainable Apparel and Environmentally Sustainable Apparel Purchase Intentions scale	• Regression used to understand how attitudes influence purchase intentions.

Integration of Qualitative and Quantitative Data

To draw final conclusions regarding the study's research questions, after completing both the quantitative and qualitative data analysis, the quantitative findings and the qualitative themes were compared to one another. The findings of each variable including cultural characteristics, environmental concern, AT related environmental impacts knowledge, ESA attitudes, and ESA purchase behaviors were compared across the quantitative and qualitative findings. These results were then related back to previous sources discussed within the literature review. Specifically, the researcher determined whether the quantitative and qualitative data sets corroborated, contradicted, or did not relate to one another at all (Driscoll, Appiah-Yeboah, Salib & Rupert, 2007).

Chapter 4: Findings

The following chapter discusses the quantitative findings of this dissertation. The chapter begins with an overview of the demographics of the respondents to the quantitative survey. Following the demographics is an outline of the study's reliability analysis for each of the study's scales. The third section of the chapter details the scales' descriptive statistics, including means, standard deviations, and frequencies for all five scales. Then the chapter discusses the findings of each of the research questions. Research Questions One through Five are discussed based on the descriptive statistics for each scale. The chapter concludes with a regression analysis of the scales for Research Questions Six and Eight, and a discussion of the findings. Research Question Seven is discussed solely in the qualitative chapter.

Demographics of Quantitative Respondents

In the survey, respondents were asked demographic questions about their age, level of education received, whether and where they had completed a university education, and their income.

Age

The mean age of the survey respondents was 33.31 years with a standard deviation of 11.495 (see Table 4.1). Additionally, the age of respondents was not normally distributed with more survey responses received from younger females. As is visible in Figure 4.1, where age was grouped by decades, it is clear that 40.6% of respondents were below the age of 30. Twenty-seven of the respondents did not provide their age.

Table 4.1

Participant's Ages: Descriptive Statistics

	N	Min	Max	M	SD
Age of respondents	208	18	67	33.31	11.495

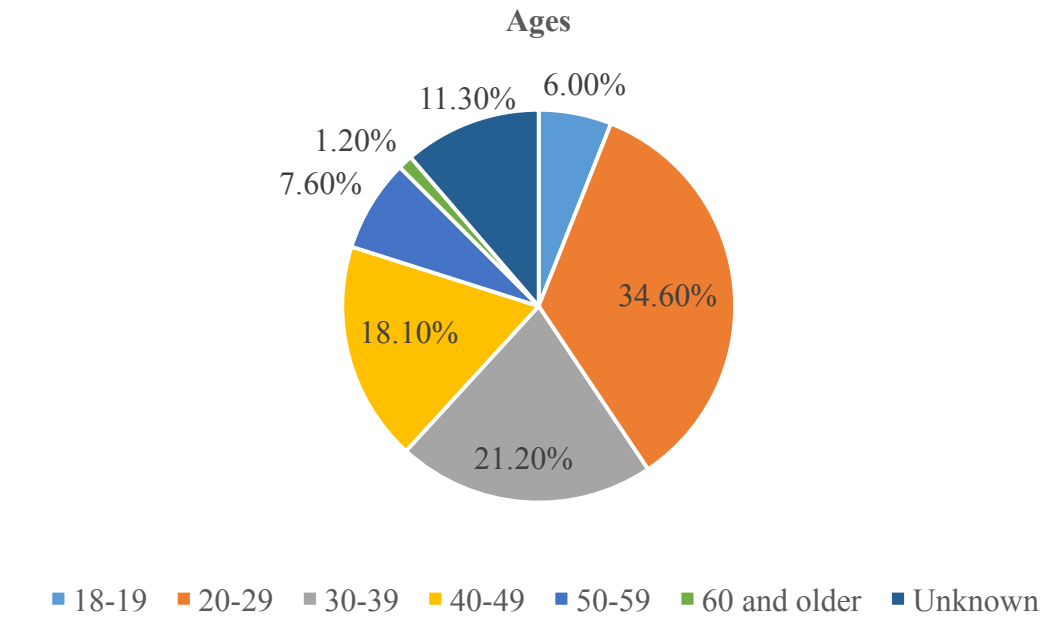

Figure 4.1 Percent of each age group by decade.

Education

Education level of the respondents was split into four categories and coded as: some high school (1), high school diploma (2), bachelor's degree (3), and higher education (graduate school) (4). Respondents (n = 216) reported a mean educational attainment of 2.53, suggesting that the average respondent had obtained at least a high school diploma or a bachelor's degree

(See Table 4.2). This is supported by Figure 4.2, which shows that 55.7% of participants reported having either received a bachelor's degree or higher education.

Table 4.2

Frequency of Education Level

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Some high school	42	17.9	19.4	19.4
	High school diploma	43	18.3	19.9	39.4
	Bachelor's degree	106	45.1	49.1	88.4
	Higher education	25	10.6	11.6	100.0
	Total	216	91.9	100.0	
Missing	System	19	8.1		
Total		235	100.0		

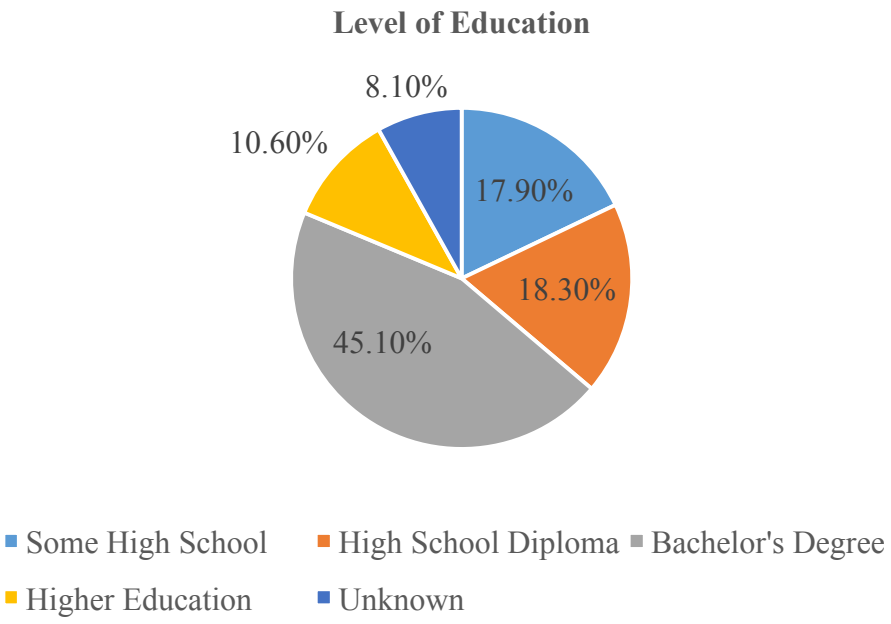

Figure 4.2 Percent of participants at each level of education.

University Degree

As can be viewed in Figure 4.3, slightly under half (48.5%) of respondents reported having completed a university degree. Answers with regards to this particular question were coded as yes (1) and no (2). The mean response was 1.47 with 19 respondents not completing the question. The frequency and percent of participants reporting having completed a university degree is reported in Table 4.3.

Table 4.3

Frequency of Respondents Having Completed a University Degree

		Frequency	Percent	Valid Percent	Cumulative percent
Valid	Yes	114	48.5	52.8	52.5
	No	102	43.4	47.2	100.0
	Total	216	91.9	100.0	
Missing	System	19	8.1		
Total		235	100.0		

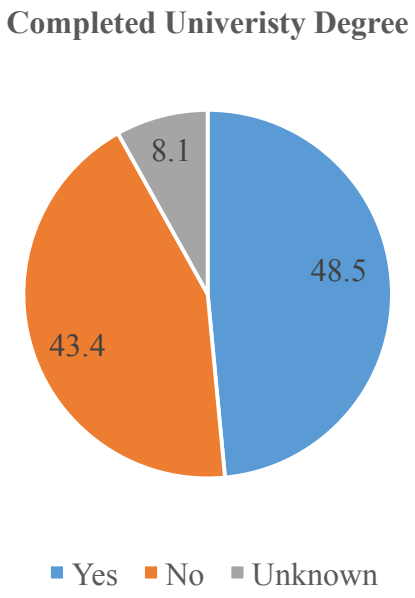

Figure 4.3 Percent of participants with a university degree.

University Attended

The participants were also asked which university they had attended. A total of 21 universities were reported by participants. In order to effectively present the information, universities were divided by region. Universities reported fell into the categories of Kuwait, the Middle East, Europe, and the US. Participants who did not report a university are categorized under "Unknown." As is visible in Figure 4.4, the majority of participants (69.66%) who reported their universities attended within Kuwait.

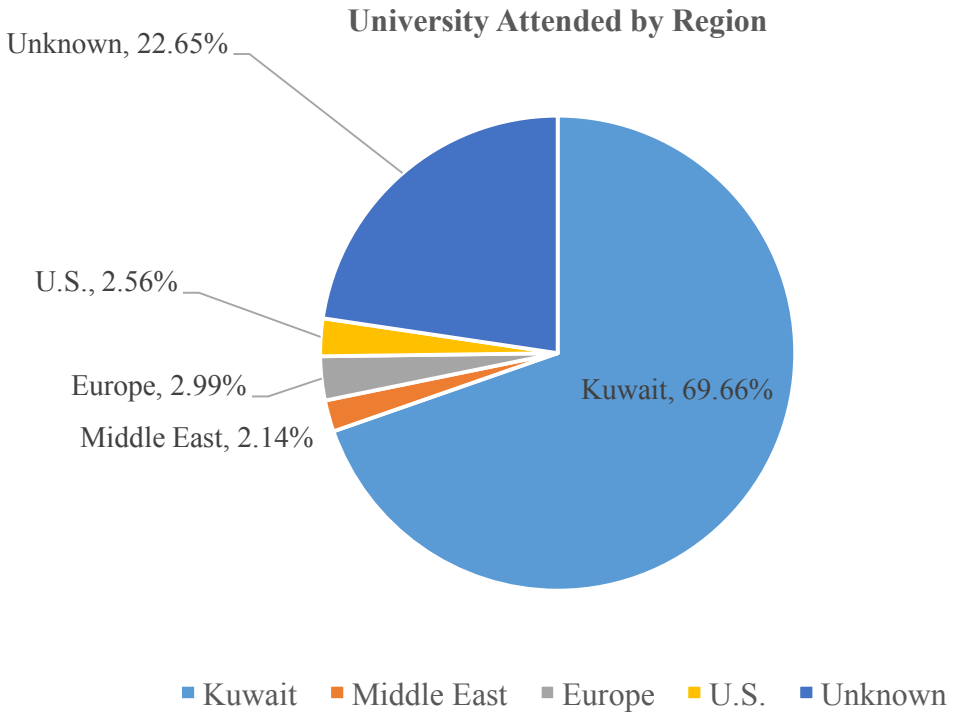

Figure 4.4 University Attended by Region

Monthly Personal Income

Finally, the question regarding income was divided into four different categories, each with its own code: less than KD 500 (<1,663 USD) per month (1), KD 500-1000 (1,663-3,326 USD) per month (2), KD 1000-2000 (3,326- 6,653 USD) per month (3), and greater than KD

2000 (>6,653 USD) per month (4). The mean response was 2.30 with 19 missing responses. The categories up to KD 2000 were fairly equally distributed and then fewer participants made more than KD 2000 per month. The frequency of reported monthly income can be viewed in Table 4.4 and Figure 4.5.

Table 4.4

Monthly Personal Income of Survey Participants

		Frequency	Percent	Valid percent	Cumulative percent
Valid	less than KD 500 per month	55	23.4	25.5	25.5
	KD 500-1000 per month	66	28.1	30.6	56.2
	KD 1000-2000 per month	70	29.8	32.4	88.4
	greater than KD 2000 per month	25	10.6	11.6	100.0
	Total	216	91.9	100.0	
Missing	System	19	8.1		
Total		235	100.0		

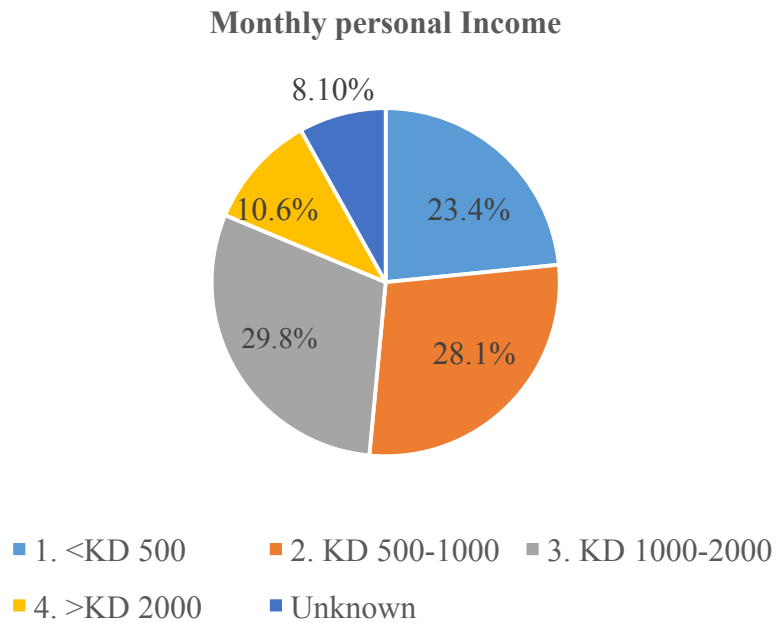

Figure 4.5 Percentage by monthly income.

Demographic Summary

Analysis of the demographics found that out of the 235 surveys used in the quantitative portion of the study, a majority of the participants (61.8%) were under the age of 40. When asked about their level of education, a majority of participants also (55.7%) reported having received a bachelor's degree or other form of higher education. When asked specifically about whether or not they had received a bachelor's degree, about half (48.5%) of the participants responded that they had completed a university degree with the majority (69.66%) stating they had attended a university within Kuwait. Just over half (57.9%) of the respondents indicated making between KD 500 and KD 2000 per month. For a complete summary of the study's demographics, see Table 4.5.

Table 4.5

Demographic Characteristics of the Sample

Variable	Description	N	%	M	SD
Age		-	-	33.31	11.495
	19>	14	6.0	-	-
	20-29	81	34.6	-	-
	30-39	50	21.2	-	-
	40-49	42	18.1	-	-
	50-59	18	7.6	-	-
	60<	3	1.2	-	-
	Unknown	27	11.3	-	-
Education Level		-	-	2.53	0.935
	Some high school	42	17.9	-	-
	High school diploma	43	18.3	-	-
	Bachelor's degree	106	45.1	-	-
	Higher education	25	10.6	-	-
	Unknown	19	8.1	-	-
University Degree		-	-	1.47	0.500
	Yes	114	48.5	-	-
	No	102	43.4	-	-
	Unknown	19	8.1	-	-
University Attended (by Region)		-	-	-	-
	Kuwait	163	69.66	-	-
	Middle East	5	2.14	-	-
	Europe	7	2.99	-	-
	U.S.	6	2.56	-	-
	Unknown	53	22.65	-	-

Monthly Income		-	-	2.30	0.978
	KD 500>	55	23.4	-	-
	KD 500-1000	66	28.1	-	-
	KD 1000-2000	70	29.8	-	-
	KD 2000<	25	10.6	-	-
	Unknown	19	8.1	-	-

Reliability Analysis of Scales

Reliability of the NEP, ESAK, Attitudes toward ESA, and ESA Purchase Intention scales was determined through the Cronbach's alpha measurement. An acceptable Cronbach score must be above 0.70 (Cronbach, 1951). All scale reliabilities are presented in Table 4.6.

The NEP scale had a Cronbach's alpha score of 0.68 which is also slightly below 0.70. Although this reliability is slightly low, the scales was still included in the analysis and results. This scale was included because even minor trends in the data can still be analyzed and discussed even though the scale does not quite meet the acceptable threshold for reliability.

The Attitudes toward Environmentally Sustainable Apparel scale had a Cronbach's alpha score of 0.671 for the original scale, which had a total of eight items. Because of its low reliability, Item 8 ("Environmentally sustainable apparel is easy to find.") was deleted through SPSS analysis. After the deletion of Item 8, the revised Attitudes toward Environmentally Sustainable Apparel scale had an acceptable Cronbach's alpha score of 0.754. The remaining two scales had reliability ratings over 0.70. The Environmentally Sustainable Apparel Purchase Intentions scale had a Cronbach's alpha reliability of 0.731, while the ESAK scale had had a strong Cronbach's alpha reliability of 0.907.

Table 4.6

Cronbach's Reliability Values

Scale	Cronbach's	Number of Items
NEP scale	0.68	15
ESAK scale	0.907	24
Attitudes Toward ESA scale (Original)	0.671	8
Attitudes Toward ESA scale (Revised)	0.754	7
ESA Purchase Intentions scale	0.731	2

Descriptive Statistics of Scales

The following section of the chapter will present all of the descriptive statistics for the scales, including the mean, standard deviation, and frequencies. This section provides the statistical findings without the interpretation. The interpretation of this data follows in the next section of the chapter.

Values Survey Model

The Values Survey Model (VSM) was a 24-item questionnaire that compared values and sentiments that are influenced by culture. The scale was used to compute scores on six different dimensions of national culture. Each dimension had four questions. Therefore, the scale had 24 (6 x 4) content questions. The six dimensions of national culture include: Power Distance (large vs. small), Individualism vs. Collectivism, Masculinity vs. Femininity, Uncertainty Avoidance (strong vs. weak), Long-Term vs. Short-Term Orientation, and Indulgence vs. Restraint. The VSM was used to determine county-level correlations, not individual-level correlations. The

descriptive statistics and frequencies are reported in Table 4.7. Coding for the VSM and four other scales utilized in the survey can be viewed in Appendix H.

Table 4.7

Descriptive Statistics and Frequencies for VSM Scale

			Frequency (%)				
Item	M	SD	1	2	3	4	5
1	4.51	.669	.4	1.3	3.4	36.6	58.3
2	3.78	1.087	5.1	7.7	18.7	41.3	27.2
3	4.52	.712	--	1.7	7.7	27.7	63.0
4	4.54	.717	0.4	2.1	4.3	29.8	63.4
5	4.52	.730	0.4	1.7	6.4	28.5	63.0
6	4.42	.772	0.4	2.1	8.5	32.8	56.2
7	4.29	.785	0.9	1.7	10.2	42.1	45.1
8	4.43	.772	0.4	1.7	9.8	31.1	57.0
9	4.32	.861	1.3	2.6	10.6	33.6	51.9
10	4.54	.758	0.4	2.1	7.2	23.8	66.4
11	4.35	.816	0.4	3.0	10.2	33.6	52.8
12	3.92	1.024	3.0	4.7	24.7	32.8	34.9
13	4.22	.784	0.4	1.7	14.5	42.6	40.9
14	3.94	.952	2.1	6.0	17.4	44.3	30.2
15	2.40	.874	19.1	27.7	47.7	4.3	0.9
16	2.27	.787	12.3	54.9	26.4	4.7	1.3
17	2.61	.975	17.0	21.7	45.1	14.5	1.3
18	2.09	.869	26.0	44.7	23.4	4.7	0.9
19	1.25	.641	82.6	11.9	3.4	0.9	0.9
20	3.08	1.016	6.4	20.4	40.0	24.7	8.1
21	2.92	1.270	11.9	35.7	10.2	28.5	11.5
22	4.26	.837	0.9	4.3	6.8	42.6	43.4
23	3.88	1.115	2.6	12.3	14.9	32.8	35.3
24	3.65	1.066	2.1	14.9	20.9	37.0	23.0

1 = of utmost importance; 2 = very important; 3 = of moderate importance; 4 = of little importance; 5 = of very little or no importance

NEP Scale

The New Environmental Paradigm (NEP) scale was used to measure the level of environmental concern in the participants. The NEP scale includes 15 items, with five response categories, ranging from strongly disagree (1) to strongly agree (5). The mean, standard deviation, and frequency for each scale item can be seen in Table 4.8. Coding for the NEP scale and four other scales utilized in the survey can be viewed in Appendix H.

Table 4.8

Descriptive Statistics and Frequencies for NEP Scale

			Frequency (%)				
Item	M	SD	1	2	3	4	5
1	3.54	0.838	2.1	4.7	42.1	39.6	11.5
2	2.07	1.029	31.9	43.8	11.9	9.8	2.6
3	3.75	0.961	2.1	8.9	22.1	45.5	21.3
4	3.00	1.153	8.5	30.6	23.8	26.8	10.2
5	4.16	0.938	2.1	5.1	8.9	42.1	41.7
6	1.40	0.654	66.4	30.2	1.7	0.9	0.9
7	3.55	1.199	6.0	16.6	18.7	34.0	24.7
8	2.75	1.206	17.4	28.9	21.7	25.1	6.8
9	3.84	0.945	2.1	8.1	16.6	49.8	23.4
10	1.87	0.798	32.8	53.2	9.4	3.8	0.9
11	3.06	1.195	8.1	30.6	22.6	25.1	13.6
12	2.79	1.123	12.8	31.1	27.2	22.6	6.4
13	3.36	1.159	5.1	23.4	18.3	36.6	16.6
14	2.48	1.075	17.9	40.9	20.0	18.3	3.0
15	4.30	0.821	1.3	1.7	10.2	39.1	47.7

1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree

ESAK Scale

The Environmentally Sustainable Apparel Knowledge (ESAK) scale was used to measure the participants' knowledge about apparel and textile related environmental sustainability issues.

The ESAK scale includes 24 items which can be answered correctly, incorrectly, or with a neutral answer "I don't know." The code for a correct answer was 1, an incorrect answer was -1, while "I don't know" was coded as 0. The mean, standard deviation, and frequency of each response can be seen in Table 4.9. Coding for the ESAK scale and four other scales utilized in the survey can be viewed in Appendix H.

Table 4.9

Descriptive Statistics and Frequencies for ESAK Scale

			Frequency (%)		
Item	M	SD	-1	0	1
1	.04	.469	8.9	77.9	13.2
2	.13	.457	4.7	77.4	17.9
3	.30	.646	10.2	49.4	40.4
4	-.11	.680	28.9	52.8	18.3
5	.28	.597	7.7	56.6	35.7
6	.46	.607	6.0	42.6	51.5
7	.11	.524	8.9	71.5	19.6
8	.32	.590	6.4	54.9	38.7
9	.18	.519	6.0	69.8	24.3
10	.49	.609	6.0	39.6	54.5
11	.54	.594	5.1	36.2	58.7
12	.57	.619	6.8	29.8	63.4
13	-.01	.757	28.9	43.0	28.1
14	.41	.623	7.2	44.7	48.1
15	-.33	.619	40.9	51.1	8.1
16	-.14	.639	28.1	57.4	14.5
17	-.15	.735	35.7	43.8	20.4
18	-.02	.613	19.6	62.6	17.9
19	-.45	.686	55.7	33.2	11.1
20	-.32	.604	39.6	53.2	7.2
21	.26	.750	18.3	37.0	44.7
22	.29	.710	14.9	41.7	43.4
23	.03	.821	31.9	32.8	35.3
24	.22	.786	22.1	33.6	44.3

-1= incorrect, 0= don't know, 1= correct

Attitudes toward ESA

Attitudes toward Environmentally Sustainable Apparel (ESA) includes a total of 7 items which were evaluated on a 5-point scale (1=strongly disagree, 5=strongly agree). See Table 4.10 for the descriptive statistics and frequencies. Coding for the Attitudes toward ESA scale and four other scales utilized in the survey can be viewed in Appendix H.

Table 4.10

Descriptive statistics and Frequencies for Attitudes scale

			Frequencies (%)				
Item	M	SD	1	2	3	4	5
1	3.11	1.166	8.9	22.6	29.8	25.5	13.2
2	2.76	.869	6.0	33.2	40.9	18.7	1.3
3	3.19	.951	3.4	17.9	44.7	24.7	9.4
4	3.06	.987	8.5	14.0	46.0	25.5	6.0
5	3.26	.879	3.0	12.3	48.5	28.5	7.7
6	2.98	.956	7.2	20.0	44.7	23.4	4.7
7	3.61	.942	3.8	5.5	31.5	43.8	15.3

1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree

ESA Purchase Intentions

The Environmentally Sustainable Purchase Intentions scale was used to measure the participants' intentions to purchase ESA. This scale is used for the behavioral variable. The ESA Purchase Intentions scale includes two items which were evaluated on a 5-point scale (1=strongly disagree, 5=strongly agree). The scales mean, standard deviation, and frequencies are included in Table 4.11. Coding for the ESA Purchase Intentions scale and four other scales utilized in the survey can be viewed in Appendix H.

Table 4.11

Descriptive Statistics and Frequencies for ESA Purchase Intentions Scale

			Frequencies (%)				
Item	M	SD	1	2	3	4	5
1	3.58	.897	3.0	4.7	36.6	40.0	13.6
2	3.83	.781	1.3	1.7	26.4	51.1	17.4

1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree

Research Questions Findings

The following section discusses the general findings of each of the research questions. Because the scales were found to be reliable (or close to reliable), the summed mean variable for each of the scales was calculated. These calculations can be viewed in Table 4.12. The summed means were then used for subsequent data analysis and for answering the research questions.

Table 4.12

The Reliability and Summed Mean Variables for each of the Scales.

Scale	Reliability	Summed Mean
NEP scale	0.68	3.0601
ESAK scale	0.907	0.1294
Attitudes Toward ESA scale (Revised)	0.754	3.1398
ESA Purchase Intentions Scale	0.731	3.7065

Research Question One: Cultural Characteristics of the Sample

The first question of this research study asked: "What are the cultural characteristics of Kuwait? For the quantitative data analysis, this question will be narrowed to asked, "What are

the cultural characteristics embodied by the Kuwaiti women?" Knowing Hofstede's (2015) findings on the characteristics of Kuwaiti culture (as outlined in Chapter 2) is important, but because this study is specifically focused on female Kuwaitis, it was necessary to explore these cultural characteristics within the population of interest through the administration of the Values Survey Model (VSM).

As detailed in Chapter 3, an exact comparison of Hofstede's scores and the VSM scores collected in this study was not possible. Therefore, the analysis of the VSM scores instead focused on the overall trends of the data collected and interpreted those trends within the context of the study's population of interest.

Power Distance Index (PDI). PDI is defined by Hofstede (2013) as the degree to which the least powerful members within a society expect and accept that the power is unequally distributed. It is measured on the VSM 2013 by Items 2, 7, 20, and 23.

Item 2 from the VSM 2013 scale is the first item to measure power distance. It states, "In choosing an ideal job, how important would it be to you to have a boss (or direct superior) you can respect?" For this item, 1 equals "of utmost importance," and 5 equals "of very little or no importance." The mean for Item 2 was 3.78, which is about equal to "of little importance." A majority (68.5%) indicated either 4 (of little importance) or 5 (of very little or no importance) for this question (see Table 4.13). Item 2 indicates a fairly low level of power distance. Respect is often considered a basic virtue in large-power-distance cultures. In the workplace of a large-power-distance culture, the ideal boss is often someone with who the workers feel comfortable and hold a high level of respect. Such bosses are referred to as a "good father" (Hofstede, Hofstede, & Minkov, 2005). By indicating that respect is not important, the participants are

going against a virtue of a high-power-distance culture and rejecting the archetype of the "good father."

Item 7 also measures power distance. It asks, "In choosing an ideal job, how important would it be to you to be consulted by your boss in decisions involving your work?" Measured on the same scale as Item 2, Item 7 had an even higher mean of 4.29 and a total of 87.2% of participants indicating either "of little importance" or "of very little or no importance." Unlike Item 2, this response shows a large-power-distance. In a large-power-distance workplace, workers expect to be told what to do. Expecting to be consulted by one's boss about one's work is an indication of a low-power-distance culture (Hofstede, Hofstede, & Minkov, 2005).

Item 20 of the VSM asks, "How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher)?" For this item, one equals never and five equals always. Item 20 had a mean of 3.08, which is roughly equivalent to "sometimes." The frequencies also supported this middle ground with 40.0% of participants indicating "sometimes," 20.4% indicating "seldom," and 24.7% indicating "usually." Overall, the participants of this study stuck to the middle ground when asked about contradicting their superiors. This shows neither a small nor a large power-distance.

Item 23 states, "An organizational structure in which certain subordinates have two bosses should be avoided at all cost." This item was measured on a scale from 1 (strongly agree) to 5 (strongly disagree). The mean of Item 23 was fairly high at 3.88, which is just below the scale marker of "disagree." A majority (68.1%) of participants indicated either 4 (disagree) or 5 (strongly disagree). This scale item shows a large power distance because in a large-power-distance situation, organizations centralize power as much as possible (Hofstede, Hofstede, & Minkov, 2005).

Overall, the cultural characteristic of power distance among the participants leaned toward a large-power-distance situation, with two out of the four questions demonstrating a large-power-distance situation. In sum, the participants indicated: large-power-distance in the centralization of power and the lack of consultation; mid-power-distance in that they can sometimes contradict their boss or teacher; and low-power-distance in that it was unimportant to respect their boss.

Individualism Index (IDV). According to Hofstede (2013), individualism represents a society that has loose ties between individuals and in which a person is expected to look only after themselves or their immediate family. Collectivism is the opposite of individualism, and it represents a society in which people are strongly integrated into cohesive groups that continue throughout life. Items 1, 4, 6, and 9 measure individualism on the VSM 2013 scale.

Item 1 asks, "In choosing an ideal job, how important would it be to you to have sufficient time for your personal or home life?" The scale for Item 1 ranges from 1 (of utmost importance) to 5 (of very little or no importance). Item 1's mean of 4.51 is very high on the scale, and this indicates a low level of individualism. Additionally, 94.9% of participants indicated either 4 (of very little importance) or 5 (of very little or no importance). Personal time and having a job that leaves you plenty of time for yourself and your family is one of the strong indicators of an individualist culture (Hofstede, Hofstede, & Minkov, 2005). By responding that having personal time away from work is not important, the participants are demonstrating a more collectivist mindset.

Item 4 states, "In choosing an ideal job, how important would it be to you to have security of employment." This item ranked equally as high with a mean of 4.54 and 93.2% of participants indicating either 4 (of very little importance) or 5 (of very little or no importance).

These responses indicate low levels of individualism. Job security is necessary for a society with high individualism because there are less social groups to fall back on if an individual becomes unemployed. According to Hofstede, Hofstede, and Minkov (2005), collectivist cultures have a tendency toward sharing among extended families. If only one individual is employed in a family, that individual is expected to share their earnings amongst the rest of the family in a collectivist society (Hofstede, Hofstede, & Minkov, 2005). By sharing income, the employment status of individuals becomes less important in collectivist cultures.

Item 6 asked, "In choosing an ideal job, how important would it be to you to do work that is interesting." Once again, the mean among the respondents was high at 4.42, and a majority (89%) chose either 4 (of very little importance) or 5 (of very little or no importance). This high mean and low level of importance also indicates a more collectivist viewpoint. Hofstede, Hofstede, and Minkov (2005) write that individualist culture encourages employment that is organized in a way that plays to the self-interest of the employed, whereas in a collectivist culture individual preferences are generally ignored for the interest of the group (Hofstede, Hofstede, & Minkov, 2005).

The final individualism measure was Item 9 which stated, "In choosing an ideal job, how important would it be to you to have a job respected by your family and friends." This item scored high on the scale with a mean of 4.32 and a total of 85.5% of participants indicating either 4 (of very little importance) or 5 (of very little or no importance). By indicating that it is not important what social groups think of their job, the participants demonstrate a high level of individualism. According to Hofstede, Hofstede, and Minkov (2005), in a collectivist culture, family and social groups are extremely important in all aspects of life. This importance can be seen in the concept of "face." One maintains "face" by acting as is expected based on one's

social rank. In individualistic societies, the focus is on self-respect, which is something that comes from the individual and not from the group (Hofstede, Hofstede, & Minkov, 2005). By basing occupation choices on personal preferences over social group opinions, this was the only scale item where the participants showed a high level of individualism.

Overall, the participants leaned toward a collectivist mentality with three out of the four items showing collectivist tendencies. Not caring about personal time outside of work, not caring about job security, and not caring if their job is interesting are all indicators of low individuality and high collectivist thinking. By indicating that they do not care if their job is respected by their social groups, the participants demonstrated one area of individualistic thinking.

Masculinity Index (MAS). Hofstede (2013) defines masculinity as a cultural characteristic in which a society emphasizes achievement and assertiveness over cooperation, modesty, and quality of life. Feminine cultures tend to see both men and women sharing modesty and caring values equally while in masculine cultures, women tend to be less competitive and assertive compared to men. Within the VSM 2013 scale, Items 3, 5, 8 and 10 measured either masculinity or femininity.

The first measure of masculinity was Item 3, which asks, "In choosing an ideal job, how important would it be to you to get recognition for good performance?" Among the respondents, this scale item had a high mean of 4.52, and a total of 90.7% of participants indicated either 4 (of very little importance) or 5 (of very little or no importance). Recognition of a job well done is a masculine trait (Hofstede, Hofstede, & Minkov, 2005). The participants' indication that recognition is not very important shows a low level of masculinity. Additionally, not desiring to receive recognition fits with the feminine notion of modesty.

Item 5 of the VSM scale states, “In choosing an ideal job, how important would it be to you to have pleasant people to work with?” This item measures the feminine pole of the scale because working with people who cooperate and work well together is one of the important preferences of the feminine measure (Hofstede, Hofstede, & Minkov, 2005). This item had a high mean of 4.52, and a majority (91.5%) of the participants choosing either 4 (of very little importance) or 5 (of very little or no importance). Because the participants rejected this feminine goal, this item shows a higher degree of masculinity.

“In choosing an ideal job, how important would it be to you to live in a desirable area?” is Item 8 of the VSM 2013 scale. This item also measures a feminine ideal. According to Hofstede, Hofstede, and Minkov (2005), the feminine pole includes the need to live in an area that is desirable. In this study, this item had a mean of 4.43 and 88.1% of the respondents indicated either 4 (of very little importance) or 5 (of very little or no importance). Because this feminine characteristic had high scores of indifference, this item’s response indicates more masculine traits.

The final question in the VSM 2013 scale for measuring the characteristic of masculinity versus femininity was Item 10 which asks, “In choosing an ideal job, how important would it be for you to have chances for promotion?” This question measures masculinity because the opportunity for advancement to higher-level jobs is attributed to the masculine pole by Hofstede, Hofstede, and Minkov (2005). This item had a high mean of 4.54, and a majority (90.2%) of participants who chose either 4 (of very little importance) or 5 (of very little or no importance). By showing indifference toward the masculine trait of advancement, the participants leaned toward the feminine pole on this measure.

The overall findings for the masculinity versus femininity measure found that the participants were in the middle of the two extremes because they did not strongly demonstrate the fundamental traits of either masculinity or femininity. When asked about masculine ideals like recognition and advancement the participants were generally indifferent. The same was true for feminine traits. When asked about the feminine ideals of cooperation and living area, the participants were also indifferent.

Uncertainty Avoidance Index (UAI). Hofstede (2013) describes uncertainty avoidance as the extent to which society members feel threatened by uncertain, ambiguous, unstructured, or unknown situations. Uncertainty avoidance is assessed in the VSM 2013 scale through Items 15, 18, 21, and 24.

Item 15 of the VSM 2013 scale states, "How often do you feel nervous or tense?" The scale goes from 1 (always) to 5 (never). Among the study's participants, Item 15 had a mean of 2.40, which is about halfway between 2 (usually) and 3 (sometimes). And, nearly half (47.7%) of participants indicated 3 (sometimes) in response to the item. From this data it would seem that the participants are slightly tense. Hofstede, Hofstede, and Minkov (2005) explain that this item, which was originally meant as a measure of power distance, was later found to be linked instead to the uncertainty avoidance cultural dimension. The answer to this item demonstrates the level of anxiety that exists in a society in the face of uncertainty (Hofstede, Hofstede, & Minkov, 2005). This item shows that the participants have slightly elevated levels of uncertainty avoidance.

In the VSM scale, Item 18 asks, "All in all, how would you describe your state of health these days?" The scale ranges from 1 (very good) to 5 (very poor). The mean for this response was 2.09, which is roughly equivalent to 2 (good). Additionally, 44.7% of participants chose 2

(good). This indicates that generally participants perceived themselves as being in good health. Hofstede, Hofstede, and Minkov (2005) note that the self-rating of health across countries has a tendency to negatively correlate with uncertainty avoidance. Therefore, the participants' high health rating of "good" indicates a low level of uncertainty avoidance.

Item 21 says, "One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work." The scale goes from 1 (strongly agree) to 5 (strongly disagree). According to Hofstede, Hofstede, and Minkov (2005) this item shows a dislike for ambiguity and a need for precision that is characteristic of high uncertainty-avoidance cultures. The mean was very close to neutral with at 2.92, which is close to the scale response category of undecided. Additionally, the categories of 2 (agree) and 4 (disagree) received the majority of the responses with 2 (agree) receiving 35.7% of responses and 4(disagree) receiving 28.5% of responses. Overall, participants were fairly evenly split about a manager's need to answer all questions so uncertainty avoidance among the research participants was neither high nor low for this item.

The last uncertainty avoidance item within the VSM 2013 scale is Item 24, which states, "A company's or organization's rules should not be broken – not even when the employee thinks breaking the rule would be in the organization's best interest." The scale ranges from 1 (strongly agree) to 5 (strongly disagree). The mean for Item 24 was slightly high at 3.65, which falls between 3 (undecided) and 4 (disagree). A majority of participants (60.0%) chose either 4 (disagree) or 5 (strongly disagree). This indicates that participants generally believed rules should be broken for the better good. Such a belief goes against uncertainty avoidance. Stepping outside of the rules creates an ambiguous situation, which leads members of uncertainty avoidance cultures feeling threatened according to Hofstede, Hofstede, and Minkov (2005).

Additionally, a strong uncertainty-avoidance culture creates an emotional need for rules (Hofstede, Hofstede, & Minkov, 2005). By indicating that rules can be broken, the participants demonstrate that they do not have the emotional connection to rules that members of an uncertainty-avoidance culture often have.

The participants of this study showed slightly lower levels of uncertainty avoidance. Two of the items demonstrated low uncertainty avoidance through the participants' willingness to break rules and through their generally high personal health ratings. Participants were evenly split over whether or not a manger should be able to answer every question. But, the elevated levels of nervousness and tension found among the participants were more indicative of high levels of uncertainty avoidance.

Long Term Orientation Index (LTO). According to Hofstede (2013), LTO represents cultural characteristics that foster virtues oriented toward future rewards such as adaptation, perseverance, and thrift. Opposing long-term orientation is short-term orientation which represents cultural characteristics that supports virtues related to the past and present like tradition, preservation of "face", and social obligations. Long Term versus Short Term Orientation is measured in VSM 2013 through Items 13, 14, 19, and 22.

Item 13 asks, "In your private life, how important is doing a service to a friend?" The scale ranges from 1 (of utmost importance) to 5 (of very little or no importance). The item measures a characteristic of short-term orientation cultures. Among the respondents in this study, the mean was high at 4.22 and a majority (83.5%) answered either 4 (of little importance) or 5 (of very little or no importance). This indicates more long-term orientation among the research participants because this response is a rejection of the short-term characteristic of concern with social obligations (Hofstede, Hofstede, & Minkov, 2005).

Item 14 stated, “In your private life, how important is thrift (not spending more than needed)?” This item measures thrift, which is a characteristic of long-term orientation (Hofstede, Hofstede, & Minkov, 2005). The scale ranges from 1 (of utmost importance) to 5 (of very little or no importance). Among the respondents, the mean was relatively high at 3.94, which is close to the scale value of 4 (of little importance). This is further supported by 74.5% of participants responding either 4 (of little importance) or 5 (of very little or no importance). By showing little value in their appraisal of the long-term characteristic of thrift, the participants showed low levels of long-term orientation and high levels of short-term orientation.

Item 19 is “How proud are you to be a citizen of your country?” The scale ranges from 1 (very proud) to 5 (not proud at all). The mean among the study’s respondents was very low at 1.25, and 82.6% of participants responded with 1 (very proud). This response may indicate high levels of short-term orientation among the participants. According to Hofstede, Hofstede, and Minkov (2005) national pride is a component of short-term orientation.

The final item measuring long-term orientation in the VSM 2013 scale is Item 22, which states, “Persistent efforts are the surest ways to results.” Response options range from 1 (strongly agree) to 5 (strongly disagree). This item had a very high mean of 4.26, and a majority of participants (86%) chose either 4 (disagree) or 5 (strongly disagree). This response also highlights high levels of short-term orientation and low levels of long-term orientation among the research participants because persistence is a virtue of long-term orientation societies (Hofstede, Hofstede, & Minkov, 2005), and participants showed almost no support for this virtue.

Overall, the responses of the participants related to long-term orientation indicate that the Kuwaiti women surveyed are more in line with short-term oriented values. Three out of the four

items did not support long term orientation by either disagreeing with long-term orientation virtues like thrift and persistence, or showing short-term orientation values like patriotism. However, responses to the item measuring perceptions of social obligation did go against the traditional virtues of short-term orientation.

Indulgence versus Restraint Index (IVR). Within Hofstede's (2013) model, indulgence represents a society that permits relatively free gratification of desires and feelings especially leisure, merrymaking, spending, and consumption. Restraint represents a society that controls gratification and prevents enjoyment. In the VSM 2013 scale, Items 11, 12, 16, and 17 assess indulgence versus restraint.

The first item measuring indulgence in the VSM scale is Item 11, which asks, "In your private life, how important is keeping time free for fun?" The response categories range from 1 (of utmost importance) to 5 (of very little or no importance). According to Hofstede, Hofstede, and Minkov (2005) leisure is an important component of an indulgent society. In this study, this item had a high mean of 4.35, and a majority of responses (86.4%) indicated that this item was of very little importance (4) or of very little or no importance (5) to the participants. This strong trend against leisure time supports high levels of restraint and low levels of indulgence as a cultural characteristic of the research participants.

Item 12 of the VSM 2013 scale asks, "In your private life, how important is moderation: having few desires?" The response categories go from 1 (of utmost importance) to 5 (of very little or no importance). Hofstede, Hofstede, and Minkov (2005) explain that thrift and moderation are important parts of a restrained society. Among the respondents, this item also had a high mean at 3.92. Additionally, 67.7% of participants chose either 4 (of little importance) or 5 (of very little or no importance). Compared to Item 11, the mean and frequencies for this item

support the characteristic of indulgence. By not supporting moderation, the respondents display high levels of support for indulgence and low levels of restraint.

The third item in VSM 2013 scale to measure indulgence is Item 16 which states, "Are you a happy person?" The scale ranges from 1 (always) to 5 (never). In a comparison of indulgent versus restrained societies, Hofstede, Hofstede, and Minkov (2005) state that indulgent societies have a higher percentage of very happy people, while restrained societies have a lower percentage of very happy people. Responses to this question resulted in a mean of 2.27 among the participants. This indicates that participants are usually happy. Furthermore, over half (54.9%) of participants selected 2 (usually). Because high levels of happiness are associated with high levels of indulgence, the participants' generally happy responses are indicative of a more indulgent culture.

The final item measuring restraint in the VSM scale is Item 17, which states, "Do other people or circumstances ever prevent you from doing what you really want to?" Response options to this question range from 1 (always) to 5 (never). Hofstede, Hofstede, and Minkov (2005) report that maintaining order in the nation is a high priority of restrained societies. Limiting the abilities of members can be viewed as a way to maintain order. The mean, among the responses, for Item 17 was 2.61, which falls between 2 (usually) and 3 (sometimes). A majority (66.8%) of respondents also selected 2 (usually) and 3 (sometimes). This question shows slightly higher levels of restraint and lower levels of indulgence because participants indicated that people or circumstances can prevent them from what they want to do (indulgence).

The cultural measure of indulgence versus restraint was split with half of the answers supporting indulgence and the other half restraint. Indulgence was apparent in people indicating

that they were happy and not concerned with moderation. Restraint was seen in people being prevented from what they wanted to do and not finding it important to have fun.

Discussion of the Cultural Characteristics Embodied by Female Kuwaiti Nationals.

The review of the descriptive statistics related to power distance among participants found a relatively large power-distance situation, especially when related to the centralization of power and a lack of consultation. The participants also showed a tendency toward collectivism over individualism in every aspect except that they did not need for their job to be respected by their social groups. The responses to the masculinity versus femininity index found that the participants were generally in the middle, rejecting the extremes of both the masculine and the feminine ideals. The participants had slightly lower levels of uncertainty avoidance especially when asked about rules and personal health. The Kuwaiti women leaned more toward short-term orientation because they did not support long-term orientation virtues like thrift and persistence, while demonstrating short-term virtues like patriotism. Finally, the participants indicated indulgence in some aspects and restraint in others. With indulgence being supported by happiness and a lack of moderation, while restraint was shown through people being restricted and not having leisure time. See Table 4.13 for the descriptive statistics of all of the VSM 2013 scale items.

Table 4.13

VSM Scale Items, Means, and Frequencies

Item	M	Frequency (%) 1	2	3	4	5
Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to...?						
1. Have sufficient time for your personal or home life	4.51	.4	1.3	3.4	36.6	58.3
2. Have a boss (or direct superior) you can respect	3.78	5.1	7.7	18.7	41.3	27.2
3. Get recognition for good performance	4.52	--	1.7	7.7	27.7	63.0
4. Have security of employment	4.54	0.4	2.1	4.3	29.8	63.4
5. Have pleasant people to work with	4.52	0.4	1.7	6.4	28.5	63.0
6. Do work that is interesting	4.42	0.4	2.1	8.5	32.8	56.2
7. Be consulted by your boss in decisions involving your work	4.29	0.9	1.7	10.2	42.1	45.1
8. Live in a desirable area	4.43	0.4	1.7	9.8	31.1	57.0
9. Have a job respected by your family and friends	4.32	1.3	2.6	10.6	33.6	51.9
10. Have chances for promotion	4.54	0.4	2.1	7.2	23.8	66.4
In your private life, how important is each of the following to you?						
11. Keeping time free for fun.	4.35	0.4	3.0	10.2	33.6	52.8
12. Moderation: having few desires.	3.92	3.0	4.7	24.7	32.8	34.9
13. Doing a service to a friend.	4.22	0.4	1.7	14.5	42.6	40.9
14. Thrift (not spending more than needed)	3.94	2.1	6.0	17.4	44.3	30.2
15. How often do you feel nervous or tense?	2.40	19.1	27.7	47.7	4.3	0.9
16. Are you a happy person?	2.27	12.3	54.9	26.4	4.7	1.3
17. Do other people or circumstances ever prevent you from doing what you really want to?	2.61	17.0	21.7	45.1	14.5	1.3
18. All in all, how would you describe your state of health these days?	2.09	26.0	44.7	23.4	4.7	0.9
19. How proud are you to be a citizen of your country?	1.25	82.6	11.9	3.4	0.9	0.9
20. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher)?	3.08	6.4	20.4	40.0	24.7	8.1

21. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work.	2.92	11.9	35.7	10.2	28.5	11.5
22. Persistent efforts are the surest ways to results.	4.26	0.9	4.3	6.8	42.6	43.4
23. An organization structure in which certain subordinates have two bosses should be avoided at all cost.	3.88	2.6	12.3	14.9	32.8	35.3
24. A company's or organization's rules should not be broken – not even when the employee thinks breaking the rule would be in the organization's best interest.	3.65	2.1	14.9	20.9	37.0	23.0

Items 1-14: 1 = of utmost importance; 2 = very important; 3 = of moderate importance; 4 = of little importance; 5 = of very little or no importance.
Items 15 & 16: 1 = always, 2 = usually, 3 = sometimes, 4 = seldom, 5 = never.
Item 17: 1 = yes, always, 2 = yes, usually, 3 = sometimes, 4 = no, seldom, 5 = no, never.
Item 18: 1 = very good, 2 = good, 3 = fair, 4 = poor, 5 = very poor.
Item 19: 1 = very proud, 2 = fairly proud, 3 = somewhat proud, 4 = not very proud, 5 = not proud at all.
Item 20: 1 = never, 2 = seldom, 3 = sometimes, 4 = usually, 5 = always.
Item 21-24: 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree.

Research Question Two: Environmental Concern

The second research question posed by this study was: "What level of environmental concern is held by female Kuwaiti nationals?" This research question is quantitatively answered through the analysis of data from the New Environmental Paradigm (NEP) Scale, which was used to measure the level of environmental concern held by the participants. The means and frequencies of the NEP items can be found in Table 4.14.

Among the respondents, the summed mean of the NEP Scale was 3.0601. This is very close to the middle score of three on the scale, which could be equated to neutral feelings. Therefore, the participants were found to be generally noncommittal in their feelings of concern about the environment. While they were not overwhelmingly concerned about the current state of the environment, generally they also did not have negative feelings about the need for environmental protection.

Item 15 on the NEP scale stated: “If things continue on their present course, we will soon experience a major ecological catastrophe.” This item demonstrated the highest level of agreement out of all of the items on the scale with a mean of 4.31 and 47.9% of participants indicating that they “strongly agree” with the statement. A large number of the participants also agreed with Item 5 (Humans are seriously abusing the environment). This item had a mean of 4.16, which is just above the scale equivalent of 4 for “agree.” Item 5 had an impressive 83.9% of participants rank the item as either “agree” or “strongly agree” (See Table 4.14).

The respondents moderately agreed with Items 3 and 9. Item 3 stated, “When humans interfere with nature it often produces disastrous consequences.” This item had a mean of 3.75, which is just below an “agree” average of 4. A majority of participants (67.0%) indicated that they “agree” or “strongly agree” with this statement. Item 9 stated, “Despite our special abilities, humans are still subject to the laws of nature.” Item 9 had a mean of 3.84, which leans toward agreement. This is supported by the frequencies, which show that 72.9% of participants either “agree” or “strongly agree” with this statement (See Table 4.14).

Item 6 had the lowest mean out of all of the items on the scale with a mean of 1.40. Item 6 stated, “The Earth has plenty of natural resources if we just learn how to develop them.” Because this item was reverse coded, that means that a strongly negative answer is actually equal to higher levels of environmental concern. A total of 66.1% of participants indicated that they strongly disagreed with this statement and another 30.5% indicated that they disagreed, which leads to a vast majority (96.6%) rating this item as a 1 or 2. And, because this item was reverse coded, these low responses demonstrate a high amount of environmental concern among the participants.

Item 10 (The so-called "ecological crisis" facing humankind has been greatly exaggerated) was also disagreed or strongly disagreed with by a majority of the sample. A total of 32.6% of participants indicated that they strongly disagreed and another 53.4% indicated that they disagreed with this statement. But, because this statement was also reverse coded, this finding indicated that the total of 86.0% of participants who either disagreed or strongly disagreed with this statement are demonstrating high levels of environmental concern for this issue. This high level of environmental concern on these items can be seen in the reverse coded item's low mean of just 1.87.

Item 2 (Humans have the right to modify the natural environment to suit their needs.) was another reverse coded item with a low mean (2.07). A majority (75.8%) indicated that they either disagreed or strongly disagreed with this statement. This disagreement is equivalent to high levels of environmental concern for this issue.

Overall the NEP scale revealed neutral feelings related to the environmental concern of the study participants. While the participants did not have strong feelings of environmental concern for many issues, they also did not seem to have negative feelings related to environmental protection. Participants were most concerned about the future of the environment and general abuse of the environment by people. Participants also agreed that human interaction with the environment was often disastrous and that humans are still subject to the laws of nature both of which show concern for the environment. Participants also displayed high levels of environmental concern by disagreeing that the earth has plenty of resources, the "ecological crisis" is exaggerated, and humans have the right to modify nature.

Table 4.14

New Environmental Paradigm Scale Means and Frequencies

Item	M	Frequency (%)				
		1	2	3	4	5
1. We are approaching he limit of the number of people the Earth can support.	3.53	2.1	4.7	42.4	39.4	11.4
2. Humans have the right to modify the natural environment to suit their needs.*	2.07	32.2	43.6	11.9	9.7	2.5
3. When humans interfere with nature it often produces disastrous consequences.	3.75	2.1	8.9	22.0	45.8	21.2
4. Human ingenuity will insure that we do not make the Earth unlivable.	3.00	8.5	30.5	23.7	27.1	10.2
5. Humans are seriously abusing the environment.	4.16	2.1	5.1	8.9	42.4	41.5
6. The Earth has plenty of natural resources if we just learn how to develop them.*	1.40	66.1	30.5	1.7	.8	.8
7. Plans and animals have as much right as humans to exist.	3.54	5.9	16.9	18.6	33.9	24.6
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.*	2.75	17.4	28.8	22.0	25.0	6.8
9. Despite our special abilities, humans are still subject to the laws of nature.	3.84	2.1	8.1	16.9	49.6	23.3
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.*	1.87	32.6	53.4	9.3	3.8	.8
11. The Earth is like a spaceship with very limited room and resources.	3.06	8.1	30.5	22.9	25.0	13.6
12. Humans were meant to rule over the rest of nature.*	2.78	12.7	31.4	27.1	22.5	6.4
13. The balance of nature is very delicate and easily upset.	3.37	5.1	23.3	18.2	36.4	16.9
14. Humans will eventually learn enough about how nature works to be able to control it.*	2.47	17.8	41.1	19.9	18.2	3.0
15. If things continue on their present course, we will soon experience a major ecological catastrophe.	4.31	1.3	1.7	10.2	39.0	47.9

1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree

* Designates items to be reverse coded.

Research Question Three: Environmental Sustainability Apparel Knowledge

The third research question asked by this study was: "What is the level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing?" This research question was explored through the analysis of the participants' responses to the Environmental Sustainability Apparel Knowledge (ESAK) scale.

Generally, the participants of this study had very minimal levels of knowledge in terms of the environmental issues of the apparel and textile industry. This trend can be seen through the scale's summed mean of 0.1294. Because the summed mean is so close to 0, which on the scale indicates "I don't know," it is apparent that overall participants have very little knowledge about ESA.

Generally, participants were unsure of the environmental impacts of apparel and textile manufacturing. The percentage of participants who answered "don't know" to individual items on the ESAK scale ranged from a low of 29.7% on Item 12 [The manufacturing of clothing uses large amounts of energy. (True)] to a high of 78.0% on Item 1 [Globally, more agrochemical insecticides are applied to cotton than any other major crop. (True)] with the average at 49.6%. That means that, on average, just under half of the responses to the ESAK questions were "don't know."

An average of 18.7% of the items on the scale were incorrectly answered. Item 19 [Though natural fibers such as cotton and wools are processed, dyed, and cleaned with large amounts of chemicals, they are still safe to the environment and people. (False)] received the highest percentage of incorrect answers (55.9%) and the lowest mean (-0.45). The correct answer to this question is false, but 55.9% of participants answered "True." This means that a majority of participants hold incorrect knowledge on this item. Another item answered incorrectly by a

large number of participants was Item 15 [Home laundering (washing and drying) of a 100% cotton t-shirt will have less of an environmental impact than the initial production of the cotton fiber and the manufacturing of the shirt. (False)]. Only 8.1% of participants correctly answered "False" to this item, and 40.7% of participants incorrectly answered "True." This resulted in a mean score of -.33 for Item 15. In other words, participants incorrectly believed that cotton clothes are better for the environment during the home laundering process.

However, there were a few items within the scale that participants did significantly answer correctly. An average of 31.8% of the items were correctly answered by the participants. Items with a large number of correct responses (a mean of 0.5 or higher) included Item 11 [Chemical pollutants are produced during the manufacturing of textiles. (True)] and Item 12 [The manufacturing of clothing uses large amounts of energy. (True)]. A total of 58.9% of participants answered Item 11 correctly, and 63.6% of respondents answered Item 12 correctly. Item 10 [Many of the chemicals found in textile dyes are known and/or suspected carcinogens. (True)] was also very close to a significantly correct number of responses with a mean of 0.49. Just over half (54.7%) of participants answered this question correctly. All of the items, means, and frequencies are displayed in Table 4.15.

Interpreting the findings from this scale, on average participants were aware that many of the chemicals found in textile dyes are known and/or suspected carcinogens; chemical pollutants are produced during the manufacturing of textiles; and the manufacturing of clothing uses large amounts of energy. These three items are the only three out of the twenty-four items on the scale that had a significant number of correct responses.

The quantitative findings for Research Question Three showed that participants were generally unaware of how apparel manufacturing affects the environment. Participants were the

most aware of the harmful chemicals and large amounts of energy required to produce apparel. Participants were generally misinformed about natural fibers such as cotton. Participants often answered that natural fibers were good for the environment, which led them to answer incorrectly on questions about the use of chemicals in natural fiber production and the amount of energy needed to launder cotton apparel. Other negative aspects of apparel manufacturing such as the high usage of water and the waste of textiles scored very close to zero indicating that the participants did not know the answers to these questions.

Table 4.15

Environmentally Sustainable Apparel Knowledge

Item	M	Frequency (%)		
		-1	0	1
1. Globally, more agrochemical insecticides are applied to cotton than any other major crop. (True)	.04	8.9	78.0	13.1
2. Growing enough cotton to make a pair of jeans (weighs 1.5 pounds) requires approximately 55% more water than what is needed to grow enough wheat for a loaf of bread weighs 2 pounds. (True)	.13	4.7	77.5	17.8
3. The raw materials used to manufacture polyester and other synthetic fibers are derived from nonrenewable resources. (True)	.31	10.2	49.2	40.7
4. The raw material needed to make virgin polyester and other synthetic fibers is abundantly available. (False)	-.10	28.8	52.5	18.6
5. Transforming the raw materials into polyester fibers is more energy intensive as cultivating cotton fiber. (True)	.28	7.6	56.4	36.0
6. Though it takes little to no water to produce synthetic fibers, it consumes large amounts of energy. (True)	.46	5.9	42.4	51.7
7. Chemicals used in textile processing can remain in aquatic systems for fifty or more years. (True)	.11	8.9	71.6	19.5
8. As much as 20% of ALL industrial water pollution comes from dyeing and finishing of textiles. (True)	.33	6.4	54.7	39.0
9. Transforming cotton fiber into denim fabric is more energy intensive than manufacturing jeans. (True)	.19	5.9	69.5	24.6
10. Many of the chemicals found in textile dyes are known and/or suspected carcinogens. (True)	.49	5.9	39.4	54.7
11. Chemical pollutants are produced during the manufacturing of textiles. (True)	.54	5.1	36.0	58.9
12. The manufacturing of clothing uses large amounts of energy. (True)	.57	6.8	29.7	63.6

13. Minimal fabric is wasted in the manufacturing of clothing. (False)	.00	28.8	42.8	28.4
14. A garment's fiber type affects the amount greenhouse gases emitted into the atmosphere during home laundering (washing and drying). (True)	.41	7.2	44.5	48.3
15. Home laundering (washing and drying) of a 100% cotton t-shirt will have less of an environmental impact than the initial production of the cotton fiber and the manufacturing of the shirt. (False)	-.33	40.7	51.3	8.1
16. In an industrial landfill, a 100% cotton garment will biodegrade within one or two months. (False)	-.14	28.4	57.2	14.4
17. A majority of garments thrown away by consumers are diverted from landfills and recovered for reuse or recycling. (False)	-.16	36.0	43.6	20.3
18. The production of textile and apparel products uses minimal amounts of water. (False)	-.01	19.5	62.3	18.2
19. Though natural fibers such as cotton and wools are processed, dyed, and cleaned with large amounts of chemicals, they are still safe to the environment and people. (False)	-.45	55.9	33.1	11.0
20. The use of larger quantities of natural fibers will significantly decrease energy consumption within the textile industry. (False)	-.33	39.8	53.0	7.2
21. Which of the following consumes the most energy during fiber production? (Polyester)	.27	18.2	36.9	44.9
22. Which of the following consumes the most water during fiber production? (Cotton)	.29	14.8	41.5	43.6
23. Which consumes the least energy when drying in a home dryer: a load of 100% cotton items or a load of 100% polyester? (The load of 100% polyester)	.03	32.2	32.6	35.2
24. If placed in a home compost system, which would biodegrade faster: a 100% cotton t-shirt or a 100% polyester t-shirt? (A 100% cotton t-shirt)	.22	22.0	33.5	44.5

-1=respondent answered incorrectly, 0=respondent answered "don't know", 1=respondent answered correctly

Research Question Four: Attitudes toward ESA

The fourth research question of this dissertation was, "What attitudes do female Kuwaiti nationals hold about environmentally sustainable apparel?" This question is quantitatively explored through the analysis of data from the Attitudes toward ESA scale (Perrachio, & Meyers-Levy, 1994).

The summed mean for the Attitudes toward ESA scale was 3.1398. This is close to the response category of 3 on the 5-point Likert scale, which is neutral. Therefore, the summed mean for the scale indicates a neutral attitude toward environmentally sustainable apparel among the participants, and that the participants on average do not have either strongly positive or negative attitudes toward ESA. Additionally, none of the individual items had a mean above a 4 or below a 2, which indicates that the participants also felt relatively neutral about individual items of the scale.

In the Attitudes towards ESA scale, scores closer to the response category of 1 correspond to positive attitudes about ESA. Item 1 ("I would not purchase an environmentally sustainable apparel product.") was one of the higher scoring scale items with a mean of 3.11. A total of 38.5% of participants indicating that they either agreed or strongly agreed with this statement (see Table 4.16). This means that 38.5% of participants would more than likely not purchase an ESA product.

Item 5 ("Environmentally sustainable apparel is a well-made product.") was another high scoring/negative attitude statement with a mean of 3.25. A total of 36% of participants disagreed or strongly disagreed with this statement, which was reverse coded. That translates to a negative attitude about ESA products and a belief that the products are poorly made. Item 7 ("Environmentally sustainable apparel is a worthwhile product.") had the highest mean out of all

the scale items at 3.61. This indicates that this item generate the most negative attitudes toward ESA. This item was also reverse coded. A majority (59.4%) of participants indicated that they either disagreed or strongly disagreed with this item.

Table 4.16

Attitudes toward Environmentally Sustainable Apparel

Item	M	Frequency (%)				
		1	2	3	4	5
1. I would not purchase an environmentally sustainable apparel product	3.11	8.9	22.9	29.7	25.4	13.1
2. Environmentally sustainable apparel is a mediocre product	2.76	5.9	33.5	40.7	18.6	1.3
3. Environmentally sustainable apparel is a high quality product*	3.18	3.4	18.2	44.5	24.6	9.3
4. Environmentally sustainable apparel is a poor value product	3.06	8.5	14.4	45.8	25.4	5.9
5. Environmentally sustainable apparel is a well- made product*	3.25	3.0	12.3	48.7	28.4	7.6
6. Environmentally sustainable apparel is boring	2.97	7.6	19.9	44.5	23.3	4.7
7. Environmentally sustainable apparel is a worthwhile product*	3.61	3.8	5.5	31.4	44.1	15.3

1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree.
* Indicates items to be reverse coded.

The summed mean and individual item means for the Attitudes toward ESA scale all indicated that the participants in this study were generally neutral in their attitudes toward ESA, but some negative attitudes were also determined. For example a majority of participants stated that they did not believe ESA to be a worthwhile product. Participants also showed slightly negative attitudes about whether ESA was well-made and whether or not they would purchase ESA.

Research Question Five: ESA Purchasing Behaviors

The fifth research question of this study asked, "To what degree are female Kuwaiti nationals engaged in environmentally sustainable apparel purchase intentions?" Quantitatively this research question was answered through analysis of the findings of the ESA Purchase Intentions scale (Hyllegard et al., 2012).

Among the participants, the summed mean for the ESA Purchase Intentions scale was 3.7065. Strangely, this was the highest overall mean when compared to the scales measuring concern about the environment, knowledge about environmental issues in the apparel and textile industry, and attitudes about environmentally sustainable apparel. While the summed mean for ESA purchase intentions is still not above a 4 on the 5-point scale, it is still high by comparison to the means of the other scales.

Over half of the participants responded with either a 4 (agree) or a 5 (strongly agree) to both scale items. Item 1 stated, "In the future I intend to purchase environmentally sustainable apparel." For this scale item, 39.8% of participants indicated that they agreed, and 13.6% indicated that they strongly agreed. Item 2 stated, "In the future I intend to tell a friend about environmentally sustainable apparel." For this scale item, 50.8% indicated that they agreed and 17.4% indicated that they strongly agreed. This means that a total of 53.4% of people supported Item 1 and 68.2% of people were in agreement with the second item. The means and frequency of the ESA purchase intentions scale can be viewed in Table 4.17.

Strangely, these highly positive responses seem at odds with the response to Item 1 ("I would not purchase an environmentally sustainable apparel product.") of the Attitudes toward ESA scale. In which close to 40% of participants indicated that they agreed or strongly agreed

with *not* purchasing ESA products. Further analysis and discussion of these results will be given in the following section.

Table 4.17

Environmentally Sustainable Apparel Purchase Intentions

		Frequency (%)				
Item	M	1	2	3	4	5
1. In the future I intend to purchase environmentally sustainable apparel.	3.57	3.0	5.1	36.4	39.8	13.6
2. In the future I intend to tell a friend about environmentally sustainable apparel.	3.83	1.3	1.7	26.7	50.8	17.4

1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4= agree, 5 = strongly agree.

The ESA Purchasing Behavior scale showed the most positive results out of all of the scales. A majority of the participants indicated that they would purchase ESA and tell friends about ESA. This result is a little surprising. Especially when considering that the purchase intention item from the Attitudes about ESA scale showed a negative attitude toward purchasing ESA.

Correlation of the Attitudes toward ESA Scale Item 1 & the ESA Purchase Intentions Scale

The contradictory responses between the Attitudes toward ESA scale Item 1 ("I would not purchase an environmentally sustainable apparel product.") and the summed mean for the ESA Purchase Intentions Scale was readily apparent. A total of 38.5% of participants indicated that they either agreed or strongly agreed that they would not purchase ESA (see Table 4.18), but in the ESA Purchase Intentions Scale a total of 53.4% of people agreed that in future they intended to purchase environmentally sustainable apparel and 68.2% of respondents stated that in

the future they intended to tell a friend about environmentally sustainable apparel. For a comparison of the response frequencies of these items see Table 4.18.

Table 4.18

Comparison of Attitudes toward ESA Item 1 and ESA Purchase Intentions Scale

		Frequency (%)				
Item	M	1	2	3	4	5
Attitudes toward ESA Scale Item:						
1. I would not purchase an environmentally sustainable apparel product	3.11	8.9	22.9	29.7	25.4	13.1
ESA Purchase Intentions Scale Items:						
1. In the future I intend to purchase environmentally sustainable apparel.	3.57	3.0	5.1	36.4	39.8	13.6
2. In the future I intend to tell a friend about environmentally sustainable apparel.	3.83	1.3	1.7	26.7	50.8	17.4

Upon further analysis there was a positive, significant correlation of r=.236 between the Attitudes toward ESA scale's Item 1 and the ESA Purchase Intentions scale. This means that people who are more likely to answer that they agree that they would not purchase an environmentally sustainable apparel product on the Attitudes toward ESA scale are also more likely to agree that they intend to purchase ESA products in the future and to tell a friend about ESA products in the future on the ESA Purchase Intentions scale. See Table 4.19 for the correlations.

Table 4.19

Pearson Correlations

	Tatt Item 1	Tbehave
Tatt Item 1	1	.236**
Tbehave	.236**	1

** Correlation is significant at the 0.01 level (2-tailed).

These responses contradict each other. Because there is a difference in how participants answered these similar questions at different points in the survey, it is possible that the positive responses received on the ESA Purchase Intentions scale at the end of the survey were influenced by the other survey questions. By completing a survey that was so heavily focused on environmental concern, knowledge about the environmental impacts of the apparel manufacturing industry, and attitudes about ESA, it is possible that the participants were influenced to be more inclined to purchase ESA products in the future simply because of their participation in this study.

Research Questions Six and Eight: Relationships between Environmental Concern, Knowledge, ESA Attitudes, and ESA Purchase Intentions

How environmental concern and the level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing influences attitudes about ESA is the sixth research question explored in this study. The eighth research[2] question focused on how attitudes about ESA influence environmentally sustainable apparel purchase intentions.

[2] Due to the nature of Research Question 7, findings relevant to this question are only being reported within the qualitative findings chapter of the dissertation (Chapter 5).

These research questions were explored through the summed mean variables of environmental concern (Tnep), environmental knowledge about AT issues (Tesak), attitudes about ESA (Tatt), and ESA purchase intentions (Tbehave) and through correlation and regression analysis.

Correlation between variables. Though correlation does not prove causation, correlation can be a predictor of causation (Sekaran, 2000). Prior to conducting the correlation analysis, preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticy. Through this preliminary analysis, it was evident that the Tnep, Tesak and Tatt variables had symmetric distributions and therefore the Pearson correlation coefficient[3] could be used. But, the variable of Tbehave was strongly skewed to the left and behaved more like an ordinal variable; therefore, the correlations with this variable utilized Spearman's rank correlation coefficient[4].

Pearson correlation was first used to explore the relationships between environmental attitudes (as measured by NEP), environmental knowledge about AT issues (as measured by ESAK), and ESA attitudes (as measured by Attitudes toward ESA scale). There was a positive correlation between knowledge about AT related environmental issues and ESA attitudes (r=.137, p=.036), with higher levels of knowledge being associated with more positive attitudes about ESA (see Table 4.20). However, despite being significant, the correlation was weak. This means that as knowledge about AT related environmental issues increases, ESA attitudes only slightly increased. There were no significant correlations between environmental attitudes and

[3] The Pearson correlation coefficient works best when the variables are approximately normally distributed and have no outliers ("Pearson's Correlation using Stata," n.d.).

[4] The Spearman's rho and Kendall's tau-b statistics measure the rank-order association between two scale or ordinal variables. They work regardless of the distributions of the variables (Chok, 2008).

knowledge about AT related environmental issues or between the variables of environmental attitudes and attitudes about ESA.

If the assumptions of normal distribution and ratio/interval scale of the variables are relaxed, as was necessary because of the behavior of Tbehave, then Spearman's rank correlation coefficient can be used. With this adjustment, the correlation between Tesak and Tbehave was significantly positive (r= .138, p= .036), with higher levels of knowledge about AT related environmental issues associated with higher levels of ESA purchase intentions (see Table 4.20). However, this correlation was also weak, so as AT related environmental knowledge increases, ESA purchases intentions also slightly increased.

Utilizing Spearman's correlation, there was also a positive correlation between ESA attitudes and ESA purchase behavior intentions (r=.369, p=.000), with more positive ESA attitudes being associated with higher ESA purchase behavior intentions (see Table 4.20). This correlation is much stronger than the previous correlations. This means that increased knowledge is associated with increased positive ESA attitudes.

Table 4.20

Correlations

		Tnep	Tesak	Tatt	Tbehave
Tnep	Pearson Correlation	1			
Tesak	Pearson Correlation	.036	1		
Tatt	Pearson Correlation	.096	.137*	1	.
Tbehave	Spearman's Correlation	.004	.138*	.369**	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

In this study, environmental concern (Tnep) did not show significant correlations with any of the other variables. There was a weak but significantly positive correlation for knowledge

of AT related environmental issues and ESA purchase intentions (Tesak – Tbehave) (r= .138, p= .036). A weak but significantly positive correlation was also observed between knowledge of AT related environmental issues and ESA attitudes (Tesak and Tatt) (r=.137, p=.05), and a little stronger positive correlation was present between ESA attitudes and ESA purchase intentions (Tatt and Tbehave) (r=.369, p=.000). This means that as knowledge about AT related environmental issues increases, ESA attitudes and ESA purchase intentions also slightly increase, but positive ESA attitudes have a much stronger association with increased ESA purchase behaviors.

Research Question 6: The Influence of Knowledge on Attitudes

Research Question 6 asked, "How does female Kuwaitis' environmental concern and the level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing influence attitudes about environmentally sustainable apparel attitudes?" Because of the results of the previous correlation analysis and the only correlated variables within this research question being knowledge and attitudes, environmental concern was not included in this stage of the data analysis.

A simple linear regression was performed to test the influence of the independent variable (knowledge about AT related environmental issues) over the dependent variable (attitudes about ESA). The results of the regression model are shown in Table 4.21.

Table 4.21

Summary of Regression Analysis for Variables Predicting Tatt

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	T	Sig.
1	(Constant)	3.068	.051		59.804	.000
	Tesak	.523	.248	.137	2.110	.036

A significant regression equation was found [$F(1, 234)=4.453$, $p=0.036$], with an R^2 of 0.019. These results prove that knowledge about AT related environmental issues influenced the participants' attitudes about ESA (ß=.137, $t=2.110$).

Research Question 8: The Influence of Attitudes on Behavior Intentions

Research Question 8 asked, "How do Kuwaiti female nationals' attitudes about environmentally sustainable apparel influence sustainable apparel purchase behavior intentions?" A simple linear regression was performed to test the independent variable's (ESA attitudes) influence over the dependent variable (ESA purchase intentions). The results of the regression model are shown in Table 4.22.

Table 4.22

Summary of Regression Analysis for Variables Predicting Tbehave

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.957	.226		8.648	.000
	Tatt	.555	.071	.461	7.857	.000

A significant regression equation was found [$F(1, 229) = 61.73$, $p = 0.000$], with an R^2 of 0.212. These results prove that ESA attitudes influenced the participants' ESA purchase intentions (ß=.461, t=7.857).

Regression Summary. The combined results of the regression analysis completed to answer Research Questions 6 and 8 show that, among female Kuwaiti nationals, increased knowledge of the environmental impacts of the textile and apparel manufacturing leads to more positive attitudes about environmentally sustainable apparel. Additionally, more positive attitudes about environmentally sustainable apparel lead to higher environmentally sustainable apparel purchase intentions. This relationship is detailed in Figure 4.6.

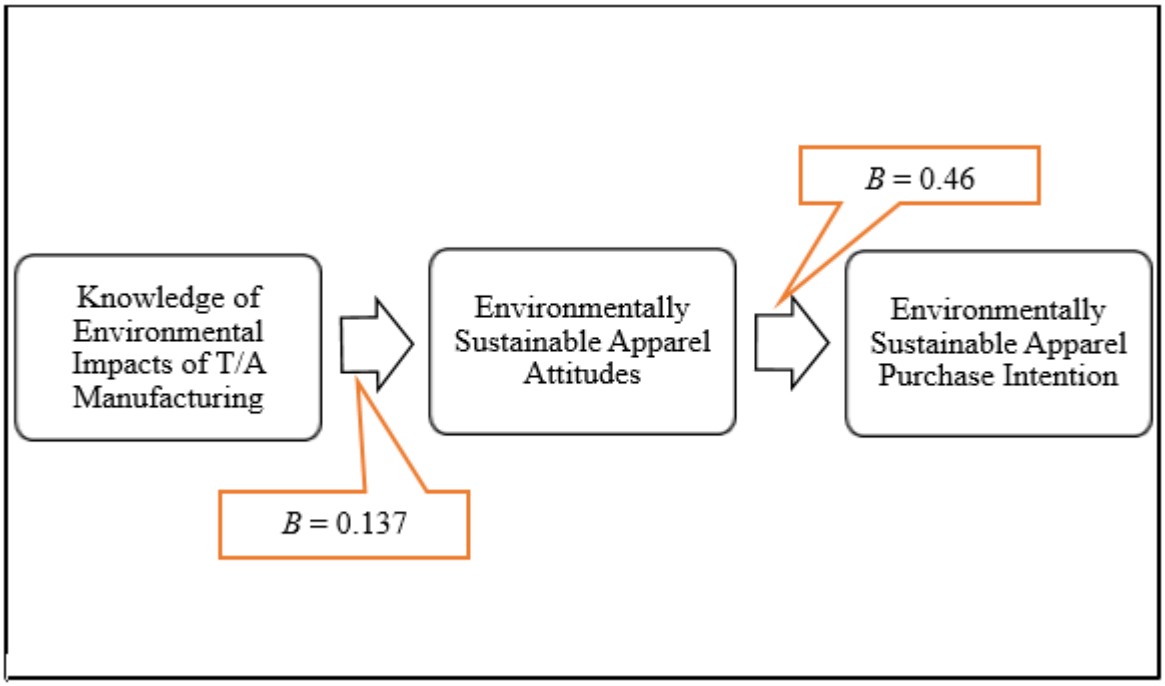

Figure 4.6 Model of regression results.

Post Hoc Research Question

In addition to the original eight research questions, post hoc research questions were explored in order to investigate potential additional relationships the study's variables (see Figure 4.6).

The first post hoc research question asked, "How does female Kuwaiti knowledge about environmental issues in the AT industry influence environmentally sustainable apparel purchase intentions?" A simple linear regression was performed to test the independent variable's (knowledge about AT related environmental issues) influence over the dependent variable (ESA purchase intentions). The results of the regression model are shown in Table 4.23.

Table 4.23

Summary of the Regression Analysis for Variables Predicting ESA Purchase Intentions

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	3.630	.063		58.023	.000
	Tesak	.586	.303	.127	1.934	.054

A significant regression equation was found [$F(1, 229) =$, p=.05], with an R^2 of .016. Showing that knowledge about AT related environmental issues may influence the participants' ESA purchase intentions slightly (ß = .127, $t = 1.934$). In order to strengthen the explanatory power of the relationship, income level, education level, and age of the participants was included within the model, but none of these co-factors were determined to be significant.

Irrespectively from age, income and education, knowledge about environmental issues in the apparel and textile industry may have a small, positive influence on ESA purchase intentions. Female Kuwaiti nationals may be more inclined to purchase apparel that is produced in an environmentally sustainable way if they have some awareness of the environmental issues associated with manufacturing apparel. But this influence is very minor, which may be why it did not fully reach significance. Demographics such as age, income and education do not explain this limited influence. Therefore, a recommendation is to continue to explore additional influential factors, such as social acceptability, popularity or perception of direct environmental threat.

After AT related environmental knowledge was determined to have a minimal effect on ESA purchase intentions, a second post hoc research question was developed: "Which influences ESA purchase intentions more in female Kuwaiti nationals, knowledge about AT related environmental issues or attitudes about ESA?"

A multiple regression was performed to test the independent variables' (knowledge about AT related environmental issues and ESA attitude) influence over the dependent variable (ESA purchase intentions). The results of the regression model are shown in Table 4.24.

Table 4.24

Summary of Regression Analysis for Variables Predicting ESA Purchase Intentions

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.630	.063		58.023	.000
	Tesak	.334	.276	.072	1.210	.227
2	Tatt	.535	.072	.444	7.455	.000

A significant regression equation was found [$F(2, 227) = 30.649$, p=.000], with an R^2 of 0.213. Within the multiple regression, knowledge of AT related environmental issues did not have a significant influence on the participants' ESA purchase intentions (ß = .072, t = 1.210). Participants' ESA attitudes had a large and significant influence on the participants' ESA purchase intentions (ß = .444, t = 7.455).

Summary of the Regression Findings: Research Questions 6, 8, & Additional Relationships

Findings of this study demonstrate that among this population, environmental concern is not a significant factor correlating to or influencing any of the other variables. Attitudes about ESA were not very well explained by the study's model. Knowledge about environmental issues in the apparel and textiles industry was a weak influencer on ESA attitudes, and this relationship was not strengthened any by adding the additional co-factors of income, education, and age. Therefore, according to the quantitative data and analysis, this study learned that knowledge is a small indicator of ESA purchase behavior.

According to the regression analysis, ESA purchase intentions were positively influenced by attitudes about ESA. Therefore, according to the quantitative data and analysis, this study learned that among female Kuwaiti nationals, positive attitudes about ESA is an indicator of higher ESA purchase intentions.

Conclusion

An analysis of the demographic information found that age of the study's respondents was skewed with a majority of the respondents being below 40 years of age. In addition, the average participant had at least a bachelor's degree with about half reporting that they had received a university degree. Of those that had attended university, a vast majority indicated that they had attended university within Kuwait. Monthly income was evenly distributed between the less than KD 500 per month to KD 1000-2000 per month. Only approximately 10% of the participants reported making greater than KD 2000 per month.

Overall, the findings from the survey data collected in this study indicate:

- In terms of Hofstede's dimensions of culture, the cultural characteristics of the female Kuwaiti nationals were high power distance and collectivism and low long term orientation and uncertainty avoidance. Findings were indeterminate regarding the dimensions of masculinity and indulgence versus restraint.
- Level of environmental concern is held by female Kuwaiti nationals was neutral, and they did not lean toward strongly positive or negative feelings about concern for the environment.
- Level of knowledge held by female Kuwaiti nationals about the environmental impacts of textile and apparel manufacturing was low.
- Attitudes of female Kuwaiti nationals about environmentally sustainable apparel were neutral on all the items assessed, and they had no strongly positive or negative attitudes about ESA.
- Female Kuwaiti nationals did not have overly strong intentions to purchase ESA in the future, however, they were more positively responsive to this variable compared to any of the others, which may have been due to their participation in this study.
- Environmental concern had no relationship in this study to the women's attitudes about ESA.
- Knowledge about apparel and textile related environmental issues did significantly influence the women's attitudes – with increased knowledge leading to more positive attitudes.
- ESA attitudes had a positive influence on ESA purchase intentions with increased positive ESA attitudes leading to a higher ESA purchase intention.

- Knowledge about AT related environmental issues had a small but significant effect on ESA purchase intentions, while ESA attitudes strongly influenced ESA purchase intentions.

Chapter 5: Qualitative Results

The following chapter presents the qualitative findings related to the study's eight research questions, along with relevant discussion. The chapter begins with a brief description of the individuals who participated in the interview portion of the study. Then, each of the subsequent sections summarizes the results related to the stated research question. Themes and subthemes were determined after the completion of the interview process. See Appendix I for a table of the themes and subthemes for all of the research questions. In order to support these results, each section is reinforced by relevant quotations from the interviews of the research participants. Finally, each section concludes with a brief discussion of the implications of the results.

Introduction to the Research Participants

A total of nine individuals participated in the interview portion of the study. These individuals were all Kuwaiti female adult citizens between the ages of 18 and 65 years. These participants were selected from the larger sample of individuals who participated in the quantitative portion of the study. At the end of the quantitative survey, all respondents were asked if they were willing to be interviewed. Those that agreed to be interviewed were then randomly selected through an online number generator. Data saturation was used to determine when to conclude the interview portion of the study. Data saturation is often used in research involving interviews, and it is the point in the interview process at which no new information or themes are seen within the qualitative data (Guest, Bunce, & Johnson, 2006).

The mean age of the interview participants was roughly 38 years old. The youngest participants were both 23 years of age. The oldest participant was 57 years old. The average monthly income of the participants fell slightly below the category KD1000-KD2000 ($3,326-$6,653 USD). Only one participant reported a monthly income of less than KD500 (<$1,663 USD) and only one participant reported a monthly income of greater than KD2000 (>$6,653 USD). Six out of the nine participants reported having completed a university degree. Of those participants, all but one attended university within Kuwait, with the other participant having attended Bournemouth University, which is in the UK. See Table 5.1 for all of the participants' demographic information.

Table 5.1

Participant Demographics

Participant #	Age	Education completed	University attended	Monthly Income
1	57	Graduate degree	Kuwait University	KD1000-KD2000
2	34	Bachelor's	The Public Authority for Applied Education and Training	KD1000-KD2000
3	48	Bachelor's	Kuwait University	KD1000-KD2000
4	45	High School	Did not attend university	KD500-KD1000
5	43	Graduate degree	Bournemouth University	More than KD2000
6	28	Bachelor's	The Public Authority for Applied Education and Training	KD1000-KD2000
7	43	Bachelor's	Kuwait University	KD1000-KD2000
8	23	High School	Kuwait University	Less than KD500
9	23	Diploma	Did not attend university	KD1000-KD2000

Participants' overall mean score for the NEP scale, which measures environmental concern was 2.982, which falls below the quantitative participants' summed mean of 3.0601.

This score is very close to the scale's neutral rating of 3. This means that, similar to all respondents to the survey, interview participants overall did not show strongly positive or negative feelings related to environmental concern. The differences in the individual participants' means were minimal. See Table 5.2 for the interview participants' means for each of the scales.

The participants' overall mean score on the ESAK scale was 0.111, which was only slightly below the quantitative participants' summed mean of 0.1294. The ESAK scale measured knowledge about environmental issues related to apparel and textile manufacturing, and a score of 0 on its scale from -1 to 1 represents "don't know." All of the participants' means were closer to 0 (don't know) than they were to 1 (correct answer). None of the participants had a negative score, which would occur if a participant answered more questions incorrectly than correctly. This shows that, like the larger sample of survey respondents, overall the interview participants had very little knowledge about environmental issues in the apparel and textile industry.

The participants' overall mean for attitudes towards ESA was 3.380, which indicates that on average participants had neutral attitudes towards ESA. This summed mean for the qualitative participants is only slightly higher than the quantitative participant mean of 3.1398. Participant 2 had the most positive attitude toward ESA with a mean score of 4.29 out of a possible score of 5. Participant 8 had the most negative attitude toward ESA with a mean score of 2.57.

In terms of intentions to purchase ESA, the overall mean score of the interview participants was 3.722, which is also only slightly higher than the quantitative summed mean of 3.7065. This indicates that even though the nine participants were generally neutral in their environmental concern, knowledge about AT related environmental issues, and attitudes about ESA, they were still willing to purchase ESA products in the future. Participant 2 even had a

mean of 5, which indicates that she strongly agreed with both items on the scale and was very willing to purchase ESA products. The lowest individual mean scores were 3s, which show a neutral behavioral intention.

Table 5.2

Participant's Mean Scores on Survey Scales

Participant #	M (NEP)	M (ESAK)	M (ATT)	M (Behave)
1	3.07	0.13	3	3
2	2.87	0.08	4.29	5
3	2.8	0	3.71	3.5
4	2.8	0.25	3.14	4
5	2.93	0.21	3.14	3
6	2.8	0.04	3.57	4
7	3.07	0.08	3.86	4
8	3.07	0.13	2.57	3
9	2.8	0.08	3.14	4
Overall mean for qualitative	2.982	0.111	3.380	3.722
Overall mean for quantitative	3.0601	0.1294	3.1398	3.7065

As a way of providing perspective and increasing the understanding of the participants prior to the presentation of the research results, a brief profile of each of the nine participants is provided below.

- Participant 1 was 57 years of age. She indicated that she had finished university, and she had attended Kuwait University where she completed higher education, which is equivalent to a graduate degree in the United States. Her reported monthly income was KD1000-KD2000 ($3,326-$6,653 USD). Her mean scores on the quantitative scales showed that she had little to no knowledge of environmental issues in the AT industry

and that her level of environmental concern, attitudes about ESA, and behavioral intentions were all neutral.

- Participant 2 was 34 years old. She indicated that she had a Bachelor's degree. She attended The Public Authority for Applied Education and Training, and she had a monthly income of KD1000-KD2000 ($3,326-$6,653 USD). Her mean quantitative scores on the survey scales indicated that she was neutral in her level of environmental concern. She had limited knowledge of environmental issues associated with apparel and textiles production. She had a positive attitude toward ESA and strongly positive behavior intentions toward ESA.
- Participant 3 was 48 years of age. She reported having received a Bachelor's degree from Kuwait University. She indicated that she had a monthly income of KD1000-KD2000 ($3,326-$6,653 USD). Her mean scores on the quantitative scales showed that she had no previous knowledge of the environmental problems in the AT industry and that her level of environmental concern was neutral. Her attitude and behavior intentions toward ESA were slightly positive.
- Participant 4 was 45 years old. She reported high school as her highest level of education. Her monthly income was indicated as KD500-KD1000 ($1,663-$3,326 USD). Participant 4 had little AT related knowledge. Her level of environmental concern and attitude toward ESA were both neutral. Her behavior intention toward ESA was positive.
- Participant 5 was 43 years of age. She reported having completed higher education and indicated that she had received a university degree from Bournemouth University. Her reported monthly income was more than KD2000 (>$6,653 USD). Participant 5 had little knowledge about the environmental impacts of AT manufacturing. Her level of

environmental concern, ESA attitudes, and behavior intentions toward ESA were all neutral.

- Participant 6 was 28 years old. She had received a Bachelor's degree from The Public Authority for Applied Education. Her reported monthly income was KD1000-KD2000 ($3,326-$6,653 USD). Participant 6 had no knowledge in terms of the environmental impacts of AT manufacturing. She had a neutral attitude towards environmental issues. She had a slightly positive attitude toward ESA, and a positive behavior intention toward ESA.
- Participant 7 was 43 years of age. She indicated that she had received a Bachelor's degree and that she had attended Kuwait University. Her reported monthly income was KD1000-KD2000 ($3,326-$6,653 USD). Participant 7 had no knowledge related to environmental issues in the AT industry. Her level of environmental concern was neutral. She had a positive attitude toward ESA and a positive behavior intention toward ESA.
- Participant 8 was 23 years old. She indicated high school as the highest degree she had earned, but she also reported being a current student at Kuwait University. Participant 8's monthly income was reported as less than KD500 (<$1,663 USD). Participant 8 held little knowledge about the environmental impacts of AT manufacturing. She was neutral in environmental concern, ESA attitude, and ESA behavior intention.
- Participant 9 was 23 years of age. Her level of education was higher than high school, but lower than university. She indicated that she had not attended a university. Her monthly income was reported as KD1000-KD2000 ($3,326-$6,653 USD). Participant 9 had no knowledge of the environmental issues in the AT industry. She was neutral in her level of

environmental concern and in her attitude toward ESA. She had a positive behavior intention toward ESA.

Research Question One: Kuwaiti Cultural Characteristics

The first research question stated, "What are the cultural characteristics of female Kuwaiti nationals?" In qualitatively examining this research question, this study focused on identifying the female research participants' perceptions of Kuwaiti culture. For the purpose of this study, Kuwaiti cultural traits were defined as the learned beliefs, values, and customs that serve to regulate the consumer behavior of members of a particular society (Schifffman, 2009). Responses by participants related to Kuwaiti cultural traits highlighted a variety of sociocultural characteristics ranging from general cultural traits to specific examples of consumerism.

The interviews focused on Kuwaiti culture by asking the participants, "How would you describe Kuwaiti culture to someone from another country?" However, many of the participants also provided insights into Kuwaiti society in addition to their viewpoints on Kuwaiti culture. For example, when asked to describe Kuwaiti culture, some responses actually referred to Kuwaiti government and politics – elements more indicative societal characteristics and not culture. However, these responses were still included in the findings in order to provide a more complete sociocultural picture of Kuwait and to represent the perspectives of the participants.

More specifically, a total of five categories of sociocultural characteristics for Kuwait were identified through the interviews. These included: general Kuwaiti societal and cultural traits, standard of living in Kuwait, effects of the Islamic religion on Kuwaitis, clothes and social classes, and the effects of social influences on Kuwaitis' clothing purchase decisions.

Kuwaiti Societal and Cultural Characteristics

When participants were asked the question, "How would you describe Kuwaiti culture to someone from another country?" some of the participants made general assessments regarding their perceptions of the level of culture within the country. Four of these participants perceived Kuwait to have a well-developed, distinguished, or complex culture with many different characteristics. For example, Participant 4 said, "Many characteristics are entered into the Kuwaiti culture." And, Participant 5 stated that Kuwait is "well-developed in terms of cultural aspects." In opposition, Participant 8 commented that, "The cultural level in Kuwait varies. There is a category of people who are cultured, and they are searching for information in different fields. There are a lot of people who have a limited culture." While Participant 8 acknowledges that there are Kuwaitis who are cultured, she does not believe the entire population is cultured, which lowers her overall judgment of Kuwait as a whole. Despite Participant 8's slightly lower judgment of some Kuwaitis, the description of Kuwaiti culture in general was reflective of a complex and well-developed culture. In additional to general statements about Kuwaiti culture as a whole, the participants also talked about more specific sociocultural traits such as politics.

Political traits. Although a societal characteristic, political judgments of Kuwait also emerged in response to the question on Kuwaiti culture. Three comments were determined to be political in nature. Participants 6 and 9 commented that Kuwait is a democratic country; and Participant 9 connected Kuwait's politics with its citizens' love for international travel by stating, "The Kuwaiti culture is a very distinguished culture; it is characterized by democracy and the freedom of speech, the Kuwaiti people also love travelling a lot and learning about new

cultures." Participant 3 believed that Kuwaitis are divided politically stating, "There are two groups, conservatives and liberals."

Educational achievement traits. Education was mentioned specifically by three out of the nine participants. Both Participants 1 and 2 discussed their beliefs that Kuwaitis were educated people; and Participant 3 specifically mentioned that "women are very educated." Participant 8 did not explicitly say education, but she did make detailed comments related to education and a lack of interest in science in today's youth.

> Participant 8: There are a lot of people having a limited culture and they are superficial persons because they are not reading more. This category of youth is focusing on reading novels only and they aren't reading about the sciences and valuable information.

Participant 8's comment indicates that she believes that young Kuwaitis should study science more and read novels less. It is obvious that she views fiction as entertainment and not education. She equates higher education to higher culture, and suggests that the current culture is limited because it lacks the substance that comes from education.

International influences on Kuwaiti cultural traits. Three participants referred to Kuwaitis as being open minded. These statements were taken to mean that Kuwaitis are generally receptive to the influence and ideas of other cultures. Two of these individuals made these statements as a contrast to Kuwait's previous societal norms. In other words, Kuwaiti society today is amenable to influences from other cultures, but in the past outside influences were limited. For example, Participant 6 said, "The Kuwaiti society is open but it was a closed one in the past, adhering to customs and traditions. However, it is more open now." These statements show the transition of Kuwait from being more traditional and closed off in the past to being more accepting of other cultures today.

Several participants also mentioned that Kuwaitis are well acquainted with other cultures and often travel. A total of nine comments made by five different participants related to travel and international cultural influences. Participant 5 even stated that, "More than 70% of Kuwaitis travel to the rest of the world; Kuwaitis are always keen to show their culture and to be distinguished from other cultures. This influences people's choices regarding clothes." In addition to being aware of other cultures through travel, participants also mentioned the effect of outside cultural influences on the local culture. A comment from Participant 9 illustrates this,

> Participant 9: As the State of Kuwait is famous for being a peaceful and democratic country, there is so many employees who came from different places like Egypt, Syria, and Jordan, and they work in fields such as teaching, engineering, etc. As well as employees coming from India and Bangladesh. All of these factors lead to the Kuwaiti culture becoming the mélange of so many different cultures.

Cultural traits associated with Kuwaiti women. Three of the interviewees mentioned women specifically in their comments related to Kuwaiti cultural traits. Participant 3 stated that "women are very educated," and "Women have gained more culture." Participant 6 pointed out, "Women have their rights and they can work, contrary to other nations." Participant 8 said, "The girls are focusing on fashion and makeup." While Participants 3 and 6 commented about positive cultural traits for women like education and employment, Participant 8 was more inclined to view other Kuwaiti women as shallow.

Discussion of Kuwaiti cultural traits. After reviewing the many Kuwaiti sociocultural traits mentioned within the interviews of the nine participants, a general picture of how these women view Kuwaiti culture can be formulated. Overall, the interviewees described Kuwait as having a dynamic culture with democratic political values. Participants noted that Kuwait is open to outside cultural influences through both Kuwaitis' international travels and through migration

into Kuwait. Kuwaitis were also referred to as educated. Kuwaiti women were primarily given the cultural characteristics of educated and cultured by the interviewed women.

Comparison to Hofstede. The discussion of Kuwait's social structure and general cultural traits is most in line with Hofstede's dimension of power disparity. This measures the intensity of the stratification of the social classes and the concentration of authority. In Hofstede's (2015) profile of Kuwait's cultural dimensions, Kuwait scored a 90 (on a scale of 0 to 100) for power disparity, which is very high. With such a high score, it would be expected that all of the wealth and power would be concentrated in the top social class. High power disparity scores also imply authoritarian governments. Despite this high score, the interviews revealed that not all individuals in Kuwait perceive high power disparity within their country. Participants described their society as both democratic and open, which are descriptors generally associated with low power disparity scores (Hofstede, 2001). Some of Hofstede's remaining five cultural dimensions will be discussed throughout the remainder of the chapter in comparison to related topics and feedback.

Standard of Living and Consumerism in Kuwait

The economy and standard of living in Kuwait were also discussed by the interviewed Kuwaiti women as an aspect of Kuwaiti society and culture. For the purposes of this study, standard of living is defined as the necessities, comforts, and luxuries enjoyed by Kuwaiti nationals ("Standard of living," n.d.). Responses coded under the standard of living variable included mentions of income level and finances, spending and consumerism, and luxury.

Two of the participants made more general comments related to Kuwait's economy. Participant 3 mentioned that Kuwait is not involved in manufacturing and that it has an open market. Participant 4 stated that Kuwaitis are consumers and that all socioeconomic classes have

witnessed development. These economic traits influence Kuwaitis' opportunities and affect the products that are available to them.

Income level and finances. Responses related to income included mentions of high income, financial capabilities, financial resources, money, wealth or wealthy, and salaries. These terms were mentioned a total of eleven times across the nine interviews conducted. Many times these terms were used in reference to the financial prosperity of many Kuwaitis. For example, Participant 2 stated, "Kuwait is an oil exporting country and salaries are considered high compared to other countries." Often these terms were used as an explanation for the high consumption of the latest fashions. Participant 4 stated that Kuwaiti women "buy the newest clothes and everything offered in the markets. The reason for this is the high income of Kuwaitis." Other instances of these terms were used in reference to Kuwaitis' spending habits, and they will therefore be discussed later.

Throughout the interviews, there was only one mention of "low income." Participant 8 stated, "Kuwaiti women have the ability to [dress well] because of their financial luxury, but the other women have lower incomes." This reference also supported the financial wealth of Kuwaitis, because Participant 8 starts by saying that Kuwaiti women have the luxury of buying nice clothes and dressing well. The "other women" who have a lower income are assumed to be a reference to non-Kuwaiti national women.

One participant talked about the financial capabilities of Kuwaiti women. Participant 5 stated, "There is a unique taste [in fashion] for Kuwaiti women. The reason behind this is the cultural and social awareness and prosperity related to *financial* availability." Participant 5's comment supports the financial capabilities of Kuwaitis, and points to this as a reason for

Kuwaiti women's focus on fashion. The overall message of the interviewees indicated that there is generally a high level of income and wealth within Kuwait.

Spending and consumerism. There was discussion in the interviews to suggest that some of the participants perceived Kuwaiti culture to include consumer aspects. The spending and consumerism category included the terms purchase, spend, buy, and consumption. These terms appeared four times across the nine interviews. The repeated appearance of these words across the interviews can be seen as supporting the notion that Kuwait has a consumer culture. Individuals also answered that Kuwaitis are focused more on consumption than production, which has led to the development of consumerism as a cultural characteristic. This notion is summed up in a statement by Participant 2 who noted that "Kuwaiti people spend their salaries without saving for the future." Participant 4 also contributed to this theme when she said, "I wonder if I should buy something I need or I will just buy for the sake of buying only."

Statements involving lending and saving also contribute to the power of consumption for some Kuwaiti women. Participant 2 stated that "Kuwaiti women have no problem spending all their money in order to be in the look they desire. Even if they do not have sufficient money, they have no problem borrowing some money in order to maintain their prestige." Similarly, when referencing Kuwaitis as consumers, Participant 2 said, "They do not think of saving as something they need to do." Both of these examples show that the participants shared a similar idea that certain Kuwaiti women are willing to spend all of their money, and even go into debt, in order to maintain appearances.

Consumerism as a cultural trait was best illustrated in a comment by Participant 6, who noted that Kuwait has a "purchasing culture" with some individuals concerned over prices while others are limitless in their spending for their children. Similarly, Participants 7 and 8 made

comments related to appearance and fashion, which can be an effect of consumerism. Participant 7 stated, "The Kuwaiti Society rushes upon everything new in the fields of technology and fashion. So many youths own the latest smartphones and devices, as well as wear the most recent clothing brands." Participant 8 shared, "Buying expensive and famous brands has become an easy thing. A person has the ability to buy the brands and expensive clothing and doing this is not limited to a specific group of people."

In possible contrast to the more pro-consumerism comments, Participant 1 stated that Kuwaitis "are satisfied with what they have." However, she was the only participant among those interviewed to have this perspective. While consumerism does not require dissatisfaction, if people are satisfied with what they already have, it may imply that they do not want or need to buy more.

Luxury. References to luxury included statements that directly said luxury, prosperity, or standard of living. There were a total of six references to these terms. These statements generally referred to Kuwait and Kuwaitis as having a luxurious society. Participant 2 stated that Kuwaitis "have a high purchase culture, especially the consumption culture… as a result of the *standard of living*, we became a *luxury* state."

> Participant 1: Our society is characterized by being a *luxury* community. This is a fact which can't be denied. Kuwaiti and Gulf societies are characterized by financial wealth and social positions require women to have a high appearance in elegance and fashion.

Both Participant 1 and Participant 2 have referred to the *luxury* aspect of Kuwaiti culture. The luxury found within Kuwaiti culture began with the high levels of income and wealth. This prosperity led to a consumption culture which encourages the use of money as a way of showcasing societal rank. This can be seen in Participant 2's reference to purchase and

consumption culture, and in Participant 1's reference to social positions dictating spending behaviors on fashion choices.

Discussion of the standard of living in Kuwait. All of the categories within the standard of living theme, including income level and finances, spending and consumerism, and luxury, showed that the participants perceive Kuwait as having a particularly high standard of living and an equally high level of consumerism. While incomes were reported as high, spending was portrayed as equally high with accounts given of women spending all of their money to maintain their prestigious looks. Through the stories of the interviewees, Kuwait was revealed as a rich country with its nationals interested in purchasing all of the luxuries that come with wealth.

Comparison to Hofstede. The high level of consumerism, even at the expense of saving for the future, is best represented by Hofstede's dimension of long-term orientation. This trait measures the level of importance placed by cultures on planning for the future and saving money (Hofstede, 2001). The comments made by many of the participants would suggest that they perceive Kuwait's long-term orientation to be low because spending is high and saving is a low priority. Unfortunately, because long-term orientation is not one of the original four cultural traits within the Hofstede model, there is currently no official numerical rating of the long-term orientation for Kuwait.

The Effects of Islamic Religion on Kuwaitis

In discussing the influence of the Islamic religion on Kuwaiti culture, the participants generally all framed their comments from a personal perspective; and the Islamic religion influenced all of the participants to varying degrees.

Seven out of the nine interviewees identified as being moderate in terms of their commitment to the Islamic religion. Out of the remaining two participants, Participant 8 applied moderation to the entire religion by stating, "The Islamic religion is considered the religion of moderation." And, Participant 6 identified as being more religious by saying, "I consider myself to be one of the more religious people." Whether moderate or strongly religious, all of the responding women admitted that their religion affected their clothing to some degree. Many of the participants also connected Islamic teachings with the conservation of the environment.

Islamic Religion and Apparel. The Islamic religion had some degree of effect on the apparel choices of all of the participating Kuwaiti women. The participants were asked, "Do you consider yourself more or less religious than the average in Kuwait? Why? How does this affect your dress?" In response, Participants 6 said, "I still wear the traditional Abaya and veil." Participant 2 also referenced wearing a veil. Participants 7 and 9 made statements about wearing a Hijab, and Participant 1 said that she wore coverslip clothes, but did not necessarily wear an Abaya.

The remaining women all made references to their desire to uphold modesty in their dress. References to modesty included avoiding bright colors, extravagance, short or transparent clothes, and preferring loose clothes that adequately cover the body. To illustrate, Participant 9 stated, "I made my mind by choosing clothes that respect our habits and traditions, but above all, it has to respect our religion." This mindfulness of the teachings of the Islamic religion was shown by all of the women who were interviewed, and this portrays how strongly Islam affects apparel choices in Kuwait.

Islamic Religion and the Environment. Seven of the participants also spoke about the Islamic religion's teachings about the environment when they were asked, "How do you think

Islamic beliefs influence attitudes and behaviors towards the environment?" Many responses included teachings against excess or wasting resources, taking care of the environment, cleanliness, hygiene, and planting plants. For example, Participant 2 stated, "The Islamic religion urges against profusion or wasting resources, even if there is much abundance." Such a response could support environmental conservation efforts. Additionally, Participant 5 talked about the Islamic religion's connection with plant life.

> Participant 5: The Islamic religion is eager to take care of the environment, including cleanliness and keeping the botanic environment. The Messenger of Allah has recommended instilling plants even if it is the last day in one's life in order to keep the plant cover.

Although all participants agreed that Islam encourages protecting the environment in some way, two respondents went on to say that although it is taught by Islam, it is not always practiced. Participant 6 sums up this viewpoint in her comment, "Many become careless about things and care for themselves only. Everything is included in the Holy Quran, but the problem lies in implementation."

Discussion of the Effects of the Islamic Religion on Kuwaitis. All of the participants identified as being moderate or committed to the Islamic religion, and this commitment affected their apparel choices and views on the environment. Every woman interviewed admitted that the Islamic religion affected her clothing choices to some degree with one woman saying she wore the traditional Abaya and veil, and many of the other women saying that their clothing choices were focused on modesty and covering their bodies. Having a clean environment and avoiding wasting resources were also mentioned as Islamic beliefs, but a couple of participants pointed out that these teachings were not always implemented in daily life. Overall, Islam is an important part of life for these women, which has a major effect on their clothing choices, but not necessarily on their relationship with the environment. The Hofstede Theory of Cultural

Dimensions does not explicitly measure religion, so a comparison to his cultural dimensions of Kuwait is not possible.

Kuwaiti Appearance Expectations

The relationship between clothes and social class was determined as another subcategory of Kuwaiti sociocultural characteristics identified by the participants. Neither clothes nor social class were given a specific definition during the interviews; therefore, a variety of responses occurred when the participants were asked, "Do you believe that apparel helps to signify social class in Kuwait?" Clothes were coded under the terms brands, fashion, style, clothes, items, Abaya, veil, bag, accessories, and appearance. Social class was coded under the terms rich/non-rich, upper class/lower class, less income/more income, family's income, youth/elders, new generation, social position, social class, social level, society, Kuwaiti society, radical people, all classes, (some/other) people, the person, and all people.

Among the participants, there was not a general consensus on how clothing was related to social class. Some participants thought that wealthier classes purchased better quality or more name brand clothing. For example, Participant 9 stated, "Yes, according to the family's income, if the income is high you can buy high quality clothes, if not then you cannot buy clothes of high value." This response suggests that Kuwaitis show their social class through their apparel choices with higher classes obtaining more expensive clothing. Such a response fits well with the definition of ostentatious consumption, which is defined as the practice of purchasing products to demonstrate social rank (Riquelme, Rios, & Al-Sharhan, 2001). Ostentatious consumption was predicted as being a part of Kuwaiti culture in the literature review.

Other participants thought that there is currently no difference between the clothing worn by different social classes in Kuwait. This opinion was held by Participant 5 who remarked, "I do

not think clothes are marks of social classes. The clothes were a mark of social class in the past." Although clothes have defined social classes in Kuwait historically, this may no longer be the case. Social classes may no longer be obvious based on attire because everyone has access to the same brands.

Participant 6 even suggested that lower classes wore more expensive clothing when she said, "In my opinion, the lower income class buys more brands trying to prove their ability to buy and join a more elegant social class." As Participant 6 proposes, not only can social classes be hard to judge now based on their apparel, but lower income Kuwaitis may even dress better as a way of trying to portray a higher social rank. This may also be considered ostentatious consumption because the lower social class is perceived as purchasing brands as a way to identify with higher social rank than their current circumstances.

Because of the range of responses received in this area, it is not possible to draw conclusive findings for this study regarding the nature of the relationship between clothes and social class. The lack of a distinct difference between the social classes in terms of their apparel purchasing behaviors could potential be in opposition against Hofstede's (2015) high power distance rating of Kuwait. If the social classes were strongly divided, as is implied by Hofstede's high score, then one would expect to see more drastic difference between the classes and dress. However, in recent decades, on a global level dress has become less and less of an indicator of social class and fashion becomes more accessible to consumers.

Kuwaiti Culture and Apparel Purchasing Behaviors

In the interviews, the participating women were asked, "How do you feel being Kuwaiti influences decisions you make when purchasing apparel?" and "How do your friends and family affect the decisions you make when purchasing apparel?" Responses to these questions fell into

several categories including being influenced by friends and family, considering the opinion of the general community, referring to foreign cultures, or feeling free to make independent choices.

Friends and family. The friends and family identified by the participants as being influential in the apparel purchasing behaviors included participants' friends, husbands, sisters, mothers, or other family members. These terms were used a total of 14 times by eight out of the nine participants. This high frequency of use illustrates how important friends and family are for Kuwaiti women when making decisions about apparel. The importance of this group for Kuwaitis' decisions on apparel is summed up in a quote from Participant 6.

> Participant 6: When I want to buy clothes, I take photos of them in the changing room then share them with my sister, mom, or uncle's wife depending on the people I trust their taste. Sometimes, when I see beautiful clothes with my friends, I ask them from where they got them.

While a majority of responses referring to friends and family indicated that this group had an effect on the individual's decisions for clothing, four of the fourteen mentions of friends and family talked about how this group did not affect final purchase decisions. Participant 8 shared a good example of this decision process when she said, "The members of my family try to affect me at the time of buying new clothes, but I do not agree with them always." Although this quote indicates that the participant does not always follow the advice of friends and family when making apparel decisions, the importance of this group is still clear because even when an individual makes a different choice, the opinion of friends and family is still considered first.

General community. Some of the participants also discussed the general community (other Kuwaiti people, the surrounding community, and traditions) as influencing their apparel purchase behaviors. There were a total of seven references to the general community across the nine interviews. Six of these references stated that the individual always thinks of the general

community when purchasing apparel. Participant 6 sums up this notion well by saying, "Kuwaiti women always think and take care of people's opinions around them as well as trying to imitate." The final reference to the general community was more focused on tradition's role in decisions. Participant 3 stated, the "old generation is affected by the old traditions from all aspects." The "all aspects" implies that apparel selection is included under the influence of tradition for older Kuwaitis.

Foreign influences. Several participants also implied that foreign cultures influence apparel choices in some Kuwaitis, especially in the younger generation. Three out of the nine participants referenced Western culture, going abroad, or foreign countries as influential in their apparel purchasing decisions. Participant 3 stated, "It is possible to take ideas from my friend who traveled to other countries," and she also said, "…the new generation is affected by the Western cultures, while the old generation is affected by the old traditions." Participant 5 said that, in terms of appearance, Kuwaiti women "keep up with what is going on abroad in the recent years with the spread of social networking and openness." Participant 6 noted, "Foreign countries are followed while [Kuwaiti] customs and traditions are less exercised than the previous time when we showed more respect to them." All of these references also indicated that the influence of other cultures is a recent development within Kuwait. While foreign cultures have begun to influence Kuwait, in considering all of the responses of the participants, it is apparent that family, friends, and the general community generally outweighed this rising influence.

Freedom of choice. Only one participant stated that she felt she had a complete freedom of choice in selecting her apparel. When asked how friends and family affected her decisions when purchasing apparel, Participant 3 responded, "As for my family, this could been in the past,

but now I have the freedom of choice." This response is similar to the four previous responses stating that friends and family try to influence them, but they do not always agree, although this response seems to be a more adamant declaration of independence.

Discussion of Kuwaiti culture and apparel purchasing behaviors. Overall, the interviews revealed that friends and family seem to have the strongest influence over Kuwaitis' apparel choices, but this influence is not as strong today as it was in the past. Several participants also indicated that although friends and family try to influence them, the participants do not always agree with them. And, one participant even said that her family used to be influential, but now she has the freedom to choose. The reaction of the general community and a desire to imitate is another factor that multiple participants shared. Western and foreign cultures were also referenced. These influences are growing on Kuwaitis, especially in the younger generation, but the immediate influences of friends, family, and the general community still heavily outweigh this influence.

Comparison to Hofstede. The influences on Kuwaiti women's apparel purchasing behaviors may be considered an indicator of Hofstede's Individualism versus Collectivism cultural dimension. Hofstede defines this measure as the degree of altruism present within a society. Individualism focuses on individual rights, while collectivism focuses more on society as a whole (Hofstede, 2001). Hofstede's (2015) profile of Kuwait's cultural dimensions measured Kuwait at a 25 on the individualism scale, which points to Kuwait having a more collectivist culture. The participants' responses were generally in concordance with this measurement with only one strong exception. One participant responded with a strongly individualistic view to her apparel behavior when she stated that she had the freedom to choose her clothing. The other participants focused more on the importance of the community. These

responses suggest that Kuwait still leans toward collectivism, but may be shifting slightly toward individualism.

Summary & Discussion of Kuwaiti Cultural Characteristics

The cultural characteristics of Kuwait is a vast subject that cannot be fully mapped by the questions of this study or the answers of the nine Kuwaiti women interviewed. Although there are limitations to how this information can be used when making generalizations about the entire nation or region, the answers received through this interview process did provide some insight into the cultural characteristics as perceived by those interviewed and how these may be related to their apparel shopping habits.

After a lengthy discussion of Kuwaiti cultural traits involving broad topics from politics to women's rights, it was determined that Kuwait has a dynamic and open culture that is influenced by its citizens' international travels and high level of education. A look into the standard of living in Kuwait showed not only that it is a wealthy country, but also that it supports a high level of consumerism. All of the participating Kuwaiti women were either moderate or more committed to the Islamic religion. The women's adherence to Islam had a large effect on their clothing choices, but was less likely to affect their interactions with the environment. In terms of influencing apparel choices, a majority of the women interviewed said that friends and family influenced their clothing decisions, and several also implied that fitting in with the general community was another consideration when shopping for apparel.

In comparison to Hofstede's profile of Kuwait's cultural dimensions, some of the aspects of Kuwaiti culture uncovered through this interview process matched with his findings and other cultural aspects were not supported by the participants' responses. Hofstede's measure of high power distance in Kuwaiti culture was not supported by the participants' answers. With such a

high power distance reported by Hofstede (2015), it was expected that there would be an authoritarian government and a formation of distinct social classes, but instead the participants reported a democratic government and an inability to distinguish between social classes (at least on the basis of appearance). The participants' description of being strongly influenced by their family and community in terms of their clothing purchase behaviors did seem to support Hofstede's (2015) low individualism measure for Kuwait.

Research Question Two: The Level of Environmental Concern in Female Kuwaiti Nationals

The second research question of this dissertation focused on exploring the level of environmental concern held by female Kuwaiti nationals. For this study, environmental concern has been defined as a way of thinking and attitudes related to environmental facts and people's behavior that results in consequences for the environment (Fransson & Garling, 1999). This variable was examined in the interview data by identifying the participants' general environmental attitudes and barriers to pro-environmental attitudes. For the purposes of this study, environmental attitudes are the tendency to react either positively or negatively to perceptions of the environment (Milfont, 2009). The interviews also revealed some information about the participants' levels of knowledge about environmental sustainability, which is overviewed before discussing findings related to environmental concern.

Knowledge about Environmental Sustainability

When asked, "What does the term 'environmental sustainability' mean to you?" three out of the nine participants expressed that they did not know or were not sure. Participant 4 simply

stated, “I have not heard about this term ever.” Participants 1 and 2 were also unsure, but they did provide an answer for what they thought it might mean. These answers involved using materials in a more environmentally friendly way (including recycling), using biodegradable materials, continually using natural materials, decreasing consumption, decreasing waste and garbage, and selecting clothes and foods that caused less damage to the environment. As stated by Participant 2,

> Participant 2: I read [environmental sustainability] in the questionnaire. I think it is the use of biodegradable materials. As I understand it, environmental sustainability is to decrease consumption, waste, and garbage. Also, you should use materials that are suitable for the environment. You should always pay attention to the selection of clothes or foods. I prefer products that cause less damage to the environment. I decrease waste and garbage as much as possible, via my behavior.

The other responses related to the term environmental sustainability from participants referenced constant change for the future. This type of response included cleaning (the environment) continuously, maintaining a healthy and viable environment, preserving the environment against disequilibrium and deterioration, the environment’s ability to continue and renew, taking care of everything, having a long-term vision, and increasing environmental awareness. The continual nature of these suggestions was explicitly stated in three responses. One response talked about preserving the environment; and the remaining two responses said that this was necessary for our children and future generations. Participant 8 said, “It is important to maintain a healthy and viable environment to be suitable for us and our children.”

While several of the participants were, admittedly, guessing at the definition of environmental sustainability, the combined responses of the Kuwaiti women interviewed is close to the study’s definition of environmental sustainability. For the purposes of this study, environmental sustainability was defined as a production strategy where the inputs used in industrial production are derivable from its outputs, and there is a goal of minimizing waste

products which are either not biodegradable or may take so long to biodegrade that they become a hazard to environmental health (Roberts, 2014). Similarly, participants' responses focused on meeting the continual needs of people and the environment both now and for future generations fit well with the concept of the inputs being derivable from the outputs. Participants' responses about changing the way we use materials can be considered a part of the goal of minimizing waste products.

General Environmental Attitudes

When asked, "Are you concerned with the health of the environment? Why or why not?" seven out of the nine interviewees responded that they were interested, very interested, or significantly interested in the environment. For example, Participant 3 stated, "Of course, I'm very interested in the environment, human activities affect the environment negatively and this is a sad thing."

Participant 5 did not explicitly state that she was concerned about the environment, but she did give an answer that implied her environmental interest. She answered that she noticed people's care for the environment when she lived in Great Britain, and although she believes many Kuwaitis are interested in the environment, there is not sufficient awareness within the country. She concludes, "As for me, I try to show the culture I gained [while living abroad], but the surrounding situation in Kuwait does not help me." Her statement suggests that she is interested in protecting the environment, but she believes that there is not a high level of environmental concern in Kuwait, which makes it difficult.

One participant stated that she was not interested in the environment, but she also said that she still followed the local guidelines for recycling. As she said,

> Participant 6: I am not interested largely. However, I think I am better than others are, as I tend to put the waste materials in their designated containers whether they are

> plastic, metal, or glass. I am always eager to keep the place I exist in clean as well as the beaches. I would like recycling and reusing things for other purposes.

Although a majority of participants stated that they were concerned about the environment, only four out of the nine participants named actions that they were currently doing to help the environment. Participants 1 and 2 said that they used paper bags instead of plastic bags. Participant 3 said that she planted flowers and other plants as well as tried to decrease her use of cars; and, Participant 6 noted that she was diligent in her recycling.

Most of the participants' comments regarding their environmental attitudes were fairly abstract in nature, such as statements focused on being a friend of the green environment, living in a green environment, living in a clean place, keeping up the appearances of Kuwait, preserving environmental resources, being careful not to make things worse, and trying not to cause pollution. Participant 5 encompasses many of the abstract thoughts expressed by other participants in her statement, "As a Kuwaiti, I try to keep my country clean. This is a kind of home belongingness. At least, we try to fix whatever we can. Kuwait, my country, calls for environmental development to have a better environment."

Barriers to Pro-Environmental Attitudes

Two of the nine participants commented that, in Kuwait, it was difficult to engage in behaviors consistent with their attitudes about the environment.

> Participant 4: Yes, I am interested in the environment because as an individual in society, I am worried about my children because of pollution problems. However, I have nothing to do and cannot eliminate this problem. Factories are still doing their business; what can I do?

> Participant 5: Unfortunately, and sorry to say that when I returned to Kuwait, I noticed carelessness in even the simplest things. Some people still disposed waste in the streets, as there is not a culture or sufficient awareness although there are many who are interested in the environment.

Both responses show that although many Kuwaitis are interested in the environment, they may lack the knowledge, resources, and awareness to actively help the environment. This can be seen in Participant 4's response indicating that she believes the factories are the source of the pollution. While it is true that factories pollute, there are many other areas of pollution that she could help with, but she is currently unaware of her ability to do so. Participant 5 even comments on the lack of awareness in Kuwait on certain environmental issues. Because she lived in Great Britain for a period of time, she sees that her fellow Kuwaitis may not be as well informed about environmental issues.

Summary of the General Environmental Attitudes of Female Kuwaiti Nationals

The qualitative exploration of the level of environmental concern in female Kuwaiti nationals found that a majority of participants did express concern for the environment. However, a majority also were fairly unaware of ways in which they could help the environment.

Research Question Three: Female Kuwaiti Nationals' Knowledge of the Environmental Impacts of Apparel Manufacturing

As a starting point for gauging the understanding of female Kuwait nationals regarding environmentally sustainable apparel, this dissertation first aimed to determine the level of knowledge held by the participants about the environmental impacts of textile and apparel manufacturing. For the purposes of this study, knowledge is defined as a subject's understanding of certain objects, phenomena, and relationships through the acquisition of factual information and learned skills; and the participants knowledge was assessed in the interviews through questions about the environmentally damaging aspects in the process of creating a t-shirt and

transporting it to Kuwait, the definition of environmentally sustainable apparel, and identification of environmentally sustainable apparel brands.

Textile and Apparel Production Knowledge

When asked, "Do you believe there are any environmentally damaging aspects in the process of creating a t-shirt and getting it to Kuwait? If so, what are they?" seven out of the nine participants responded that they did believe these processes caused some form of environmental damage. For example, four participants referenced the shipping process as being damaging because of the related fuel consumption. This idea can be seen in Participant 2's statement, "Yes, there are damages through the process of importing and using airplanes, freight, and transportation. There must be some pollution as it consumes petrol." Another woman also mentioned that ships pollute the seawater.

Four other respondents referred to synthetic materials, such as polyester, as negatively affecting the environment because of the inability of the fibers to decompose. One example of this was from Participant 4 who stated, "There are materials that are hard to dispose. For example, polyester has synthetic materials that are not disposed easily." Additionally, Participant 1 referenced animals as being negatively affected by apparel manufacturing when she said, "[Polyesters] also could be eaten by animals, this in turn could harm the animals and could harm us if we eat the animals."

A different group of four women cited factories as causing pollution, and two participants out of this group talked about how factories can pollute both the air and water. Participant 3 was one of the contributors to this idea,

> Participant 3: [Factories] cause pollution to the environment and the ability to breath, also waste materials thrown at the sea affect the quality of drinking water. Pollution from [factories] in the West affects the atmosphere of the whole planet and human health.

Finally, two participants stated that they did not believe that apparel manufacturing affected the environment. Participant 9 was one of these two participants. In response to a question asking if apparel manufacturing affected the environment, she said, "No, I do not think that there is any damage from making T-shirts."

Although it was not unanimous, a large majority of the participants interviewed believed that textile and apparel manufacturing did have some effect on the environment. The main reasons given for this belief included factory and shipment pollution and the creation of fabrics that are not biodegradable. While these factors do play a role in the overall pollution caused by apparel manufacturing, the participants were only able to articulate a very limited understanding of the environmental impacts associate with the AT industry. For example, none of the participants mentioned unsustainable practices for growing natural fibers or dyeing fabrics. While a majority of participants perceived there to be damage being caused to the environment through AT manufacturing, a full understanding of what causes the damage was missing from all of the responses. This shows that the participants' knowledge related to this topic is rather limited.

Environmentally Sustainable Apparel Knowledge

Defining environmentally sustainable fashion. Eight out of the nine Kuwaiti women interviewed admitted that they had no previous knowledge of the term "environmentally sustainable fashion." Five of those women made references to the previously completed questionnaire or the researcher as sources for how they now knew about the term. Participant 7 stated that she had viewed a related television program about ESA. Participant 5 referred to her familiarity with environmental sustainability, but admitted that she had never applied this

concept to apparel before when she said, "[Environmental sustainability] is a clear concept to me, but I have never recognized this concept in clothes before."

When asked, "Do you know what 'environmentally sustainable fashion' is?" only four women attempted to provide a definition of the term. Participant 2 said, "It is…clothes which could naturally decay after consumption and disposal." Participant 3 responded, "I don't know about environmentally sustainable clothes, the researcher indicated this and gave the example of a cotton T-shirt." Participant 6 gave the definition, "Environmentally sustainable fashion could be things that the ecologists specify do not negatively affect the environment." The remaining participants admitted to being unfamiliar with the definition of the term, and they did not try to provide a definition.

This study defines environmentally sustainable apparel as apparel that is produced according to practices which do not result in long-term damages to the environment and which can eventually be recycled for use in future apparel products or for industrial uses (Claudio, 2007). Participants 6 and 9 were closest to this definition. Participants 2 and 3 were focused more on natural fibers, which are not necessarily environmentally sustainable. Generally, the participants were unfamiliar with the term and were guessing at its meaning.

Knowledge of environmentally sustainable apparel brands. When asked, "Do you know the names of any environmentally sustainable fashion brands? If so, which ones? How do you know about these brands?" eight of the nine participants confessed that they did not know of any such brands, and they were not sure if any of the clothing they had previously purchased counted as environmentally sustainable apparel. This sentiment was well stated by Participant 1 who said, "No, I don't have any idea about any environmentally sustainable clothes. Yes, I buy clothes, but I do not know whether they belong to environmentally sustainable clothes."

Within the discussion of ESA, four of the participants mentioned purchasing cotton clothing or clothing made from natural materials; and three of these admitted that they were not sure if this counted as environmentally sustainable apparel. Participant 6 mentioned buying clothes made of natural fibers, but said that environmental sustainability was not the reason why she bought them.

> Participant 6: There may be products in H&M and Dorothy Perkins. Sometimes, it is labelled on an item that it is made of natural materials and its colors may be affected. This should be considered when washing. Yes, I bought 2 pants made of these materials. I did not buy them because they were environmentally sustainable and I did not notice that. I bought them because their price was suitable and they were comfortable for wearing. Their color was beautiful.

While a vast majority of participants admitted to not knowing any environmentally sustainable fashion brands, those that did give suggestions of what they thought counted as environmentally sustainable apparel were not accurate in their judgments. All of the provided suggestions focused on cotton and natural fiber clothing. Unfortunately, cotton and natural fibers are not necessarily environmentally sustainable. The concept that buying natural fibers supports environmental sustainability is misleading.

Discussion of Female Kuwaiti Nationals' Knowledge of the Environmental Impacts of Apparel Manufacturing

The review of the female Kuwaiti nationals' knowledge about the environmental impacts of apparel manufacturing identified a general lack of knowledge and many unfamiliar areas. Several participants admitted to being unaware of the definition of environmental sustainability and only a few participants were able to provide a definition that was close to the study's definition. Most of the participants agreed that there were environmentally damaging aspects of manufacturing and shipping apparel, however two participants believed that apparel manufacturing was not an issue for the environment. While the remaining participants did

provide many valid reasons why the industry is damaging to the environment, none indicated that they were aware of the damage caused by specific manufacturing processes. Finally, almost all of the participants confessed that they had never heard of the term environmentally sustainable apparel until they had participated in this study. And, none of the participants were able to name an environmentally sustainable apparel brand. When guessing about what clothing might fall in this category, many suggested cotton and natural fibers, which are often not environmentally sustainable due to their growing practices.

Research Question Four: The Attitudes of Female Kuwaiti Nationals about ESA

The fourth research question of this study is focused on exploring the attitudes of female Kuwaiti nationals about environmentally sustainable apparel. For the purposes of this study, attitudes are defined as a subject's learned disposition towards a variable in their environment – usually positive, negative, or neutral in varying degrees (Fishbein, & Ajzen, 1975). As previously stated, when asked about ESA brands, most participants simply responded that they did not know of any. Therefore, it is logical that during the interviews only two participants made references to ESA that can be classified as relevant attitudes.

Participant 1 stated, "I prefer to buy environmental sustainable clothes but I think about my health first, and then I think about the environment." However, while this statement seems to indicate that Participant 1 held a positive attitude about ESA, she had also just admitted that she did not know much about ESA and that she did not know what clothes counted as ESA. She also focused more on her personal health than on the health of the environment. Therefore, her

attitudes toward clothes seemed to be based more on her personal health than on the health of the environment.

Additionally, Participant 6 spoke about two pairs of pants that she had bought previously. She believed that the pants were environmentally sustainable because they were made of natural materials. Participant 6 explicitly said, "I did not buy them because they were environmentally sustainable… their price was suitable and they were comfortable to wear. Their color was beautiful." In all likelihood, the pants she bought were probably not environmentally sustainable apparel because ESA is often labeled accordingly. However, she perceived the garments to be ESA; and although her idea of ESA is a little misguided, Participant 6's attitude about ESA seemed neutral. She was more focused on price and fashion, so the pants potentially being environmentally sustainable were just an afterthought.

On the basis of the analysis of participants' responses related to environmentally sustainable apparel brands, it was revealed that one participant had a positive attitude toward ESA and one who had a neutral attitude toward ESA. These limited and differing responses lead to the conclusion that it is likely that many female Kuwaiti nationals do not have strong attitudes about environmentally sustainable apparel, possibly because they are also very unfamiliar with the concept.

Research Question Five: The Level of Engagement for Female Kuwaiti Nationals in ESA Purchase Behaviors

The fifth question in this dissertation focuses on the degree to which female Kuwaiti nationals engage in environmentally sustainable apparel purchase behaviors. As was discussed in the previous section, no environmentally sustainable apparel purchase behaviors were detected in

the responses gained through the interview, but this does not mean that there is no hope for ESA in Kuwait. It is believed that the lack of ESA purchase behaviors was at least partially caused by a general lack of knowledge about ESA and the minimal attitudes held by the group about ESA. These factors can be changed, and several of the women interviewed had suggestions about how to boost the visibility and sales of ESA in Kuwait.

Participant 1 pointed to a lack of knowledge as being why Kuwaitis are not purchasing environmentally sustainable clothes. She also went on to say that it is a difficult concept that will need time in order to affect people's minds.

> Participant 1: The lack of knowledge for this type of clothing is one of the reasons for non-purchase. I think people interested in the environment are the only people who purchase environmentally sustainable clothes. I think it is a difficult concept to understand that purchasing clothes has an effect on the environment. This concept needs effort and time to be understood.

This statement is in line with the suggestions set forth by previous research. A lack of knowledge is a reason why positive attitudes and purchase behaviors are lacking, and this can be changed with time and effort.

Marketing advice was also given by several participants. Participant 3 suggested, "If there are advertisements, it will help the promotion of environmentally sustainable clothes." Participant 4 also supported the idea of advertisement. She stated, "ESA has no advertisements or propaganda and no famous people speak of it. I think if there are advertisements and promotions, and they were more famous, this would encourage me to buy these products as the world develops." Participant 6 had a similar idea, "If these products appear in advertisements and gain reputation among people while a well-known figure speaks of them, this will help their spread and raising people's interest in them." These general comments support the idea that advertisements featuring famous individuals would be well received by Kuwaitis. On a similar

topic, Participant 8 referenced fashion bloggers as a catalyst for spreading knowledge and attitudes about ESA.

> Participant 8: There are some of people who are searching for the brands that sustain the environment because it became the latest fashion. This idea had been adopted by the fashion bloggers and it is noted that there is a spread of the bloggers in Kuwait.

Although the review of the qualitative research revealed that many female Kuwaiti nationals have no prior knowledge of environmentally sustainable apparel, no attitudes about environmentally sustainable apparel, and no purchasing behavior related to environmentally sustainable apparel, this research has revealed some positives. The research participants, overall, were eager to suggest ways to improve this situation, and their level of ESA knowledge and the related ESA attitudes and purchase behaviors have the potential to improve with exposure and education.

Research Question Six: The Influence of Female Kuwaiti Nationals' Environmental Concern and Knowledge about the Environmental Impacts of Apparel Manufacturing on Attitudes about ESA

Another question explored by this dissertation involved how environmental concern and the level of knowledge held by female Kuwaiti nationals about the environmental impact of textile and apparel manufacturing influenced attitudes about environmentally sustainable apparel. The themes explored by this research question include general environmental attitudes, textile and production knowledge, and ESA attitudes.

The Influence of Environmental Attitudes on ESA Attitudes

The previous examination of the level of environmental concern found in female Kuwaiti nationals discovered that a vast majority of respondents did express concern for the environment. Although concern was found among the participants, the study found that some Kuwaitis are still unaware of ways in which they could help the environment.

Because concern for the environment was expressed by almost all of the participants, one would expect that many of the participants would also have positive attitudes about environmentally sustainable apparel, but this was not found to be the case. Only one participant made a positive attitude statement when talking about ESA. This difference between the predicted affect and the actual outcome means that there must be other factors influencing the participants' attitudes about environmentally sustainable apparel.

The Knowledge about Environment Issues Related to the AT Industry on ESA Attitudes

Once again, this study has defined attitude as a subject's *learned* disposition towards a variable in their environment – usually positive, negative, or neutral in varying degrees (Fishbein, & Ajzen, 1975). The key for connecting knowledge and attitude lies in the fact that an attitude is learned. For something to be learned, new knowledge must first be introduced and processed by the individual.

The analysis of the participants' level of knowledge of the environmental effects of textile and apparel manufacturing revealed that the participants had some knowledge related to environmental sustainability, almost no knowledge of environmentally sustainable apparel, and some even held misguided beliefs about the types of clothing that qualified as ESA.

Because of the participants' lack of knowledge in this area, it was not surprising that many participants did not make any statements that could be interpreted as personal attitudes regarding ESA. There were only two participants who did make attitude statements. One was positive and one was neutral, but these attitudes were based on either no knowledge or possibly even worse, misguided information. Therefore, if these participants were to learn more about the subject, it is possible that these attitudes may change. Overall, the lack of knowledge about ESA among the participants greatly contributes to the lack of attitudes regarding ESA found by the study.

Discussion of the Influence of Environmental Attitudes and Knowledge on ESA Attitudes

Theoretically, concern for the environment should lead to participants with a positive attitude about environmentally sustainable apparel, but this association was not found among the participants. Although eight of the nine participants expressed concern about the environment, only one participant made a positive attitude statement when speaking about ESA.

This disconnect between the participants' concern and their attitudes may possibly be explained by their lack of knowledge. The participants were aware of some environmental problems and several of them were familiar with the term "environmental sustainability." This level of knowledge contributed to their existing levels of environmental concern. In contrast, almost none of the participants had ever heard the term "environmentally sustainable apparel" until they had participated in this study. Because they had no previous knowledge of ESA, they did not really have any attitudes about ESA, whether positive, negative, or neutral.

Research Question Seven: The Influence of Kuwaiti Cultural Characteristics on Environmentally Sustainable Apparel (ESA) Attitudes

The next research question examined by this dissertation explores how Kuwaiti cultural characteristics influence attitudes about environmentally sustainable apparel. As was discussed near the beginning of this chapter, the cultural characteristics of female Kuwaiti nationals are very complex and the information gained through this study is subject to limitations.

It was previously outlined in this chapter that Kuwait has a high and open culture that is impacted by its citizens' international travels, the influx of migrant workers, and a high level of education. This openness and connection to other parts of the world could potentially influence trends in Kuwait. If environmentally sustainable apparel increases in popularity internationally, Kuwait would probably be a part of this trend to some degree, and Kuwaitis may be more likely to develop a positive attitude toward ESA. This is, of course, currently just speculation. Global demand for ESA remains low, and Kuwaiti women are generally unware of this type of clothing so it remains difficult to make predictions as to how an increased awareness of ESA on an international scale may influence the attitudes of Kuwaitis' towards ESA.

Kuwait's standard of living was perceived by the participants as being high and this manifests in a high level of consumerism. Many women described situations that would be classified as ostentatious consumption, which is the practice of purchasing products to demonstrate social rank (Riquelme, Rios, & Al-Sharhan, 2001). Buying clothing to demonstrate higher social rank could have a positive effect on attitudes about environmentally sustainable apparel, if ESA is connected to higher social classes. But, if ESA cannot develop a reputation as being a luxury good within Kuwaiti society, then Kuwaitis may be far less likely to purchase

such items. As of right now, no positive or negative connection exists between ESA and luxury goods in Kuwait.

Friends and family were found to be strong influences on the women's clothing decisions. And, the ability to fit in with the general community was another consideration when shopping for apparel. If close relations or even the general community were to form strong positive or negative associations with ESA products, then this association would in turn affect the purchasing decisions of many individual Kuwaiti women. Some younger Kuwaiti women were influenced by Western fashion. If environmentally sustainable apparel were to become trendier in Western countries, it is possible that some Kuwaiti women would develop a positive attitude about ESA, but once again this is not the current situation. The same could be true if ESA found a way to fit in with the local communities of Kuwait. Based on similar situations mentioned by many of the women interviewed, if a friend were to wear environmentally sustainable apparel that was viewed as attractive, then many of her friends would probably ask about it and develop positive attitudes about ESA.

All of the participants were at least moderately committed to Islam. This commitment had a great effect on their clothing decisions and a lesser influence on their interactions with the environment. The importance of maintaining modesty within their dress appears to be a key factor in the participants' decisions about clothing purchases. Therefore it is logical to think it would also be a key factor in their attitudes towards ESA. Companies selling ESA to women in Kuwait would need to develop appropriately modest apparel. If environmentally sustainable apparel brands were developed to fit within the necessary guidelines for Islamic women's clothing, and they were advertised as being part of creating a cleaner environment, then it is

possible that this cultural characteristic could be used to build a positive attitude about ESA among female Kuwaiti nationals.

While all the Kuwaiti cultural characteristics discussed have the potential to influence female Kuwaiti nationals' attitudes about environmentally sustainable apparel in a positive way, none of the discussed influences were shown to be currently true through the interviews conducted by this study. All of these suggestions are hypothetical in nature and would need further study. Because of a lack of knowledge about ESA, the focus group of female Kuwaiti nationals currently does not portray any strong attitudes about environmentally sustainable apparel.

Research Question Eight: The Influence of ESA Attitudes on ESA Purchase Intentions

The eighth research question explored by this dissertation is how Kuwaiti attitudes about environmentally sustainable apparel influence sustainable apparel purchase intentions. The discussion of research in this chapter has already revealed that the target group of female Kuwaiti nationals do not hold any discernable attitudes about environmentally sustainable clothing because this group lacked prior knowledge of this concept.

Not surprisingly, because they did not have any previous knowledge about ESA, this group has not demonstrated any ESA purchase behaviors. Seven out of the total of nine participating women explicitly stated that they had never purchased any environmentally sustainable clothing. This included comments about not buying ESA, never hearing about ESA before, not knowing where to buy ESA, and saying there is no ESA in Kuwait. Out of the other two participants, one simply said that as a mother she purchased what she believed to be healthy

garments for her children, and the other participant suggested that ESA should have advertisements and promotions.

Responses to the question, "Have you purchased any environmentally sustainable apparel before?" showed the participants' lack of purchase behavior in terms of environmentally sustainable apparel. The question also revealed continued environmental concern in the sense that several participants spoke about other environmentally friendly behaviors that they practiced instead of talking about purchasing ESA, but this did not quite translate to a positive attitude about ESA. Out of the all of responses about purchasing ESA, there were a total of five references to other environmental behaviors engaged in by the participants. These included: using paper bags instead of plastic bags, buying environmentally sustainable shopping bags (reusable cloth bags), purchasing organic food, keeping the environment (clean), paying attention to the environment (not polluting), and supporting the Environment Public Authority (EPA). The EPA, which is an organization that safe-guards the environment in Kuwait was established to prevent pollution, as well as develop sustainable health, environmental, and scientific standards. This shift in focus by the participants from the ESA purchase behaviors asked about in the question to other environmentally sustainable behaviors may be another side effect of the lack of knowledge the participants had about ESA. An example of this redirection can be seen in Participant 9's response,

> Participant 9: No, I have not bought any environmentally sustainable clothes, as there is no such clothes in the Kuwaiti markets. Yes, there are some Kuwaiti organizations which encourage preserving the environment such as the Environment Public Authority. They participate in exhibitions to know how to preserve the environment.

Participants were also prone to talking about their health when asked about whether or not they had previously purchased environmentally sustainable apparel. Four participants

mentioned personal health or the health of children as an influence on their purchasing behavior. Skin conditions seemed to be the main health concern in terms of apparel, and natural fibers and cotton were often provided as a solution to these issues. Participant 8 was one of the four participants who mentioned health, specifically skin's health, as an influence on purchasing behavior.

> Participant 8: I don't know if these products shall be available in Kuwait or not. If these clothes are available here we will find a lot of demand for it especially because people are suffering from the chronic sensitivity of their skin.

This connection between personal health and natural fibers in the minds of many Kuwaitis may be an obstacle to the development of positive attitudes about ESA and the increase of purchase behaviors for ESA in Kuwait. Many of the interviewed participants showed a positive attitude toward natural fabrics and no attitude toward ESA. While many environmentally sustainable clothes are made from natural fabrics, they are specifically made from *organic* natural fabrics that are often more expensive. ESA brands and retailers hoping to increase sales of ESA in Kuwait will have to overcome the obstacle of less-expensive, non-sustainable natural fabrics in Kuwait.

Conclusion

This chapter focused on summarizing the qualitative data of the dissertation. Emerging from the interviews were a number of findings.

The research participants described Kuwait as having a complex culture that is open to outside influences. The descriptions of Kuwaiti society generally went against Hofstede's (2015) very high score on power distance for Kuwait. One major defining cultural characteristic of Kuwait was the nation's high standard of living, and the consumerism that has resulted from this. Although Hofstede's profile of Kuwait did not measure long term orientation, this finding would

suggest that Kuwait may not have a high level of long term orientation. Kuwaitis were also strongly influenced by the Islamic religion, especially in terms of their clothing decisions. Friends, family, and community were all referenced as influences when making apparel decision. This finding is in line with Hofstede's (2015) profile of Kuwait's cultural dimensions, which ranked Kuwait as having low levels of individualism.

The participants did express interest in environmental issues and shared very basic ideas about environmental concern, but their answers also suggested that many were unaware of how to take better care of the environment. A majority of participants responded that they did believe textile and apparel manufacturing caused harm to the environment, but none of the participants were able to fully define specifics of the environmental harm. Participants also struggled in defining the key terms environmental sustainability and environmentally sustainable apparel. Many of the participants that attempted to define ESA associated the term with natural fibers, which is not accurate because many natural fibers are produced in a way that is not sustainable.

Overall, attitudes toward ESA were difficult to determine. This lack of strong attitudes about ESA is most likely due to the participants' overall lack of knowledge in this area. Participants had not purchased ESA before, and many of them expressed their concern for their personal health when purchasing clothes, but not necessarily the health of the environment.

Chapter 6: Discussion, Implications, and Recommendations for Future Research

This chapter opens with a review of the study's sample, design, and analysis. The chapter then integrates and discusses both the quantitative and qualitative research findings, first reviewing and comparing both sets of findings and then discussing the findings in terms of implications for the education, manufacturing, and marketing of environmentally sustainable apparel (ESA). Also discussed are potential cultural barriers to ESA in Kuwait and possible solutions to these barriers. The chapter concludes with limitations of the current study and suggestions for future research in this area.

Review of Study Sample, Design, and Analysis

Sample

The population of interest in this study was Kuwaiti female consumers age 18 and older. The study's sample for the quantitative questionnaire utilized a snowball sampling strategy, sending surveys through email and asking respondents to forward the survey URL to other Kuwaiti females. A total of 528 surveys were collected through this method. However, 292 surveys were removed from the data set due to participants being male, non-Kuwaiti, under the age of 18, or incomplete. This left a total of 235 surveys in the quantitative data set that were fully completed by female Kuwaiti nationals over the age of eighteen.

The sample for the qualitative interview portion of the study was pulled from the participants who completed the quantitative survey. The last question of the survey asked respondents if they were willing to be interviewed about the topic. Out of the respondents who

agreed to be interviewed, the researcher selected interview participants through a random number selector. Sixty-two participants agreed to be interviewed for the qualitative portion of the study. However, using the strategy of data saturation to determine when enough interviews had been conducted, qualitative data collection was concluded after interviewing nine women.

Data Collection

The quantitative portion of the study utilized five different, pre-established scales to measure the variables of: general environmental concern (New Ecological Paradigm scale), knowledge about environmental issues in the apparel industry (The Environmental Sustainability Apparel Knowledge Scale), attitudes towards environmentally sustainable apparel (Attitudes towards ESA scale), environmentally sustainable apparel purchase intentions (Behavioral Intentions scale), and cultural influence (Values Survey Module 2013). Demographic data was also collected. The quantitative survey was distributed through the Qualtrics software platform.

For the qualitative portion of the study, the interviews were conducted over the Internet by utilizing the Zoom software program. Zoom allowed audio and video recordings to be captured for each interview and for data to be collected without the need for travel. Interviews were semi-structured and lasted up to 60 minutes in length. The semi-structured interview allowed the researcher to ask follow-up questions when needed, while still having data that could be easily coded. Interviews were conducted in Arabic and translated into English through the Al Diwan Translation Center in Kuwait.

Data Analysis

The quantitative data was analyzed with the help of the SPSS version 22.0 Grad Pack. The data was cleansed of incomplete or invalid surveys. Several different statistical analyses were used including descriptive statistics, correlation analysis, and regression analysis.

Descriptive statistics were utilized as an overall statistical analysis of each of the individual scales. Regression was used as a way to determine the influence of certain variables on other variables including the influence of knowledge of apparel and textile related environmental issues on ESA attitudes, the influence of ESA attitudes on ESA purchase intentions, and the influence of knowledge of apparel and textile related environmental issues on ESA purchase intentions.

Using content analysis for the qualitative data analysis, the researcher reviewed the interview transcripts and determined various themes and subthemes. Themes were general responses to the research questions while subthemes were specific responses related to the broader theme. After determining the themes and subthemes, the responses of the participants were coded. Content analysis was completed by counting the number of coded responses under each theme and subtheme, and then discussing the overall meaning of the tallied number along with the specifics of the individual responses.

Summary and Discussion of Research Findings

This section of the chapter reviews and compares the quantitative and qualitative findings relevant to all five of the study's research variables including Kuwaiti cultural characteristics, knowledge about apparel and textile related environmental issues, environmental concern, attitudes about environmentally sustainable apparel, and environmentally sustainable apparel purchase intentions. These findings are then discussed and compared to similar sources of information from the literature review. Finally, these discussions are used as a basis for the implications of the research findings and for suggestions for educators, ESA manufacturers, and retailers of ESA products.

Summary and Discussion of Kuwaiti Cultural Characteristics

The research's focus on the cultural influence aspect of subjective norms utilized Hofstede's cultural dimensions to frame the study's investigation of Kuwaiti cultural characteristics. The six dimensions include power distance, individuality vs. collectivism, masculinity versus femininity, uncertainty avoidance versus risk, long-term versus short-term orientation, and indulgence versus restraint. Hofstede's VSM 2013 scale was used to measure the cultural dimensions in the quantitative portion of the study, while in the qualitative portion, interviewees were asked about Kuwaiti culture in general, and then responses were related back to the appropriate cultural dimension.

Power distance. The quantitative survey revealed that the participants did demonstrate acceptance of large-power distance in terms of the centralization of power and the lack of consultation between bosses and employees. Being able to contradict authority figures sometimes showed a mid-power distance, and not needing to respect their boss showed a low power-distance. Overall, these responses showed higher levels of power distance, but this high distance was not demonstrated in every situation, as would be expected for Hofstede's (2015) very high power distance score of 90 for Kuwait.

Analysis of the themes and subthemes of the qualitative interview found that Kuwaiti culture was often described as dynamic and open because of the influence of the citizen's international travels and higher levels of education. Hofstede's reported high power distance was also not supported by many of the interview responses. With such a high score, a strong authoritarian government and distinct social classes would be expected (Hofstede, 2001), but neither of these characteristics was found. Participants' instead reported a democratic society and had difficulty distinguishing the different social classes.

All of the participants reported being committed to the Islamic religion, and religion generally has a positive correlation with a high degree of power disparity according to Hofstede (2015), but this was the only factor that suggested a possible power disparity within the interviews. Although the quantitative survey revealed higher levels of power distance than the interview responses, both methods fell short of the high levels of power distance reported by Hofstede (2015).

Individuality versus collectivism. In the quantitative survey, participants showed more collectivist tendencies than individualistic concerns. Participants did not care about personal time outside of work, job security, or having an interesting job all of which indicate collectivist characteristics. Participants' lack of concern toward whether or not their job was respected by their family and friends was one area that indicated a more individualistic tendency. Overall, with three out of four items indicating strong collectivist tendencies, the participants seemed to match well with Hofstede's (2015) score of 25 for individualism for Kuwait, which indicates a strongly collectivist culture, but not an entirely collectivist culture.

In the qualitative interviews, friends and family were found to be the strongest influence on the women's clothing choices; and the general community was often considered when purchasing apparel. The participants' reports of being strongly influenced by friends, family, and community in their clothing choices did appear to support Hofstede's (2015) lower individualism score of 25.

Masculinity versus femininity. Participants in the quantitative portion of the study fell directly in the middle on the masculine and feminine cultural dimension poles. Participants rejected the masculine ideals of recognition and advancement, and they also rejected the feminine ideals of cooperation and a desirable living area. Not being strongly masculine or

feminine in their preferences fits well with Hofstede's (2015) score of 40 for Kuwait, which is close to the middle of the index as well.

The ideals of recognition, advancement, and cooperation were not discussed in any of the interview responses. Additionally, living areas were only discussed as an example for how the environment should be treated under the Islamic religion. Therefore, the qualitative interview does not have any additional insights on the cultural dimension of masculinity versus femininity.

Uncertainty avoidance versus risk. The quantitative survey revealed that the participants were relatively low in their levels of uncertainty avoidance without being strong risk takers. Participants were willing to break rules for the greater good and did indicate that they had good personal health, both of which support the risk end of the spectrum. Participants were evenly split over whether or not managers should know every answer, so this item did not support either uncertainty avoidance or risk. Participants' slightly elevated level of stress was the only indication toward uncertainty avoidance found within this study's participants. These responses do not fit with Hofstede's (2015) score on this dimension of 80 for Kuwait, which indicates relatively high levels of uncertainty avoidance.

Although the participants' in the quantitative survey reported good personal health, many of the qualitative interview responses showed concern for personal health issues and the health of family. This may be due to the increased levels of asthma, leukemia, and skin conditions caused by airborne chemicals released through petroleum production (Alsalem & Khan, 2010). Other aspects of uncertainty avoidance and risk were not discussed by the interviewed participants.

Long-term versus short-term orientation. Through the survey, it was evident that the study's participants favored a short-term orientation over long-term orientation. Participants did not support long-term oriented values like thrift and persistence. Participants did demonstrate the

short-term orientated trait of patriotism, but they did not show the short-term value of social obligations.

Participants in the interview portion of the study provided further evidence that thrift is not a strong virtue in Kuwait. Participants reported high levels of consumerism and consumption to the point that examples were given of women spending all of their money on clothes. Such responses were expected based on Riquelme, Tios, and Al-sharhan's (2001) study of consumer culture in Kuwait. Additionally, participants' high praises for Kuwaiti culture in general may also support the high level of patriotism reported in the quantitative survey. Hofstede (2015) did not report Kuwait's score for this newer cultural dimension, so this result cannot be compared to Hofstede's cultural findings on Kuwait.

Indulgence versus restraint. The quantitative survey showed an even split between indulgence and restraint characteristics. Participants indicated high levels of happiness, which supports indulgence. Additionally, they did not support moderation, which is also indicative of indulgence. Restraint was demonstrated through people being prevented from doing what they want, and by participants not thinking it is important to have fun.

The high levels of consumerism and the ostentatious consumption of luxury goods revealed by the interview responses support the indulgence end of this spectrum. Ostentatious consumption is defined as buying products as a demonstration of social rank, and this practice has also been reported by Riquelme, Rios, and Al-Sharhan (2001). Additionally, the focus on consumerism also seems to support the low levels of moderation reported by the survey respondents. Unlike the quantitative survey, the interviews did not reveal any situations related to restraint. Similar to the dimension of long term/short term orientation, this dimension was not reported by Hofstede (2015), so it cannot be compared to previous findings.

Cultural dimensions discussion and implications. Considering the findings from this study of the six dimensions, the cultural dimension or subjective norm with the greatest affect for ESA purchase behavior is likely to be long-term orientation. As demonstrated in this study, Kuwaiti culture is characterized by generally low levels of long-term orientation and high levels of short-term orientation. On the basis of this characteristic, Kuwaitis may be less likely to purchase ESA products. ESA is designed to help protect the environment against the long-term, negative effects of textile and apparel manufacturing. However, because environmental degradation is a slow process, the importance of protecting the environment is likely best supported by cultures that appreciate long-term goals.

Although the short term orientation of Kuwaiti culture is not something that can be changed, there are other potential solutions to overcoming this cultural barrier. Over the course of the qualitative interviews, participants' focus on purchasing clothing for their personal health or the health of their children was revealed. The environmentally sustainable apparel knowledge scale also revealed that participants were aware of the chemical pollutants and potential carcinogens that were used during the apparel manufacturing process. By advertising ESA products as better products for human health, ESA retailers may be able to overcome the cultural obstacle of a country oriented towards the short-term. Personal health was indicated as being important to many of the participants, and promoting this benefit of ESA fits better with Kuwait's short-term orientation than environmental sustainability.

Kuwaiti culture's lower levels of individualism may also be a subjective norm that affects ESA purchasing behavior. Participants reported a strong influence from friends and family when considering clothing purchases, and participants also indicated that they considered how their choices would fit within their community. Such responses show that these personal factors of

friends, family, and community are strong modifiers of attitudes. Additionally, the subjective norms of friends and family may encompass more than the cultural aspects of subjective norms because such influences are also strong in a person's childhood, which is another aspect of the concept of subjective norms (Fishbein, & Ajzen, 1975). The strong influence of community and family on the individual indicates that ESA manufacturers and retailers should strongly consider the local customs and tastes when designing and selling ESA products in Kuwait. In this respect, a major influence on Kuwaiti communities is the Islamic religion. All of the women reported that modesty was one of their biggest considerations when purchasing apparel. With these considerations in mind, ESA manufacturers and retailers should design and sell ESA that fits with the modesty standards of Kuwaiti culture.

Because modesty is such an important consideration for Kuwaiti women, it is important that manufacturers produce clothing that fits within the Islamic religion's guidelines for women's clothing in order for Kuwaiti women to consider the clothing appropriate. This means that manufacturers of ESA products need to produce clothing that fully covers the body and is wide so that it does not reveal the figure. Additionally, many women also mentioned color as an important consideration, so manufacturers should be aware of the local tastes in this matter. Retailers should also strongly focus on local taste. Advertisements selling ESA should depict local women in appropriately modest clothing.

The high levels of consumerism evident within Kuwait may also be a potential barrier for ESA purchase behaviors. Consumerism generally reinforces consumption. Kuwaitis are extremely motivated to buy new things, which could be beneficial for ESA purchases. However, this behavior generally goes against the principles of ESA. A major part of environmental sustainability is to conserve resources. Regularly purchasing new apparel is detrimental to the

environment and the overall purpose of ESA. Although the overall levels of consumption are high, having ESA products widely available will help to reduce the environmental damage of apparel consumption.

In addition to the general consumerism that was identified in this study as a cultural characteristic, the research also revealed ostentatious consumption (the practice of purchasing products to show social rank) as a cultural characteristic of Kuwait. Ostentatious consumption could reduce ESA purchase behaviors among Kuwaitis if ESA products are viewed as inferior to mainstream brands and products. Because Kuwaitis are motivated to buy products as a demonstration of social rank, if a product does not contribute to social rank or if it detracts from that rank, then such a product will not be readily purchased by many Kuwaitis.

Retailers can appeal to the concept of ostentatious consumption in the advertisement of ESA apparel. As Kelly (2010) noted, traditional styles of dress in Kuwait have become ostentatious in their presentation with almost gaudy displays of jewelry and a willingness to pay premium prices in order to have clothing that is personally tailored with unique designs and embroidering. This trend was also seen in the interview responses where many participants indicated that it was important to stand out with their fashion. Having highly willing shoppers that are not opposed to higher prices has the potential to help the retail of ESA in Kuwait. ESA products are generally priced higher than other non-sustainable apparel products because they are more expensive to produce. ESA retailers in Kuwait will not have to worry about the price difference, if they can successfully prove to Kuwaitis that their products are superior, luxury goods.

Kuwaitis' high level of consumerism may make the values associated with ESA difficult to instill within the current culture, but the consumer culture of Kuwait may also have its own

benefits related to ESA. All of the interviewed participants indicated that they are interested in shopping for apparel. The culture of consumerism may make the retail aspect of ESA apparel easier because there are so many eager Kuwaiti shoppers. If retailers focus on the immediate benefits of ESA products like benefits for personal health, then Kuwaiti shoppers may be more interested in purchasing them because this marketing method fits with the culture's short-term orientation. In addition, marketing that advertises ESA products as luxury and quality goods would appeal to the cultural tendency of ostentatious consumption. Producing and marketing ESA products that are high quality and customizable will appeal to the many Kuwaiti consumers who place a premium on social rank and appearances. Moreover, although personalized, luxury apparel is often preferred, it is very important that the available ESA apparel remain within the strict modesty requirements of the culture.

Summary and Discussion of Environmental Concern

The New Environmental Paradigm (NEP) scale was used to measure the level of environmental concern found within the participants of the study. Environmental concern was defined as an attitudinal disposition, which is mediated by the beliefs one has about the environment (Mostafa, 2009). In this study, the NEP scale had an overall mean of 3.0601, which indicated that the participants were generally neutral in the concern for the environment.

Most of the surveyed participants agreed that an ecological catastrophe would occur if things continued along the present course. Many participants also agreed that humans create disastrous consequences when they interfere with the environment. Both of these items show higher levels of environmental concern. Participants also showed higher levels of environmental concern when they indicated that they did not believed that the Earth has plenty of natural resources and that the "ecological crisis" is exaggerated. While a few of the questions

demonstrated higher levels of environmental concern, overall participants were not overly concerned about the state of the environment, although they also did not show any negative attitudes toward environmental protection.

The qualitative findings on environmental concern revealed more positive attitudes towards the importance of environmental sustainability. A majority of participants did express concern for the environment in some way, and only one participant explicitly stated that she was not concerned for the environment. While almost all of the participants did convey concern, some participants were unable to provide examples of specific actions that they could take to better help the environment.

Therefore, the general lack of concern found within the quantitative portion of the study was not supported by the qualitative interviews. Although all of the women interviewed in the qualitative portion of the study had fairly neutral mean scores on the NEP scale, all but one of the interviewees expressed personal concern for the environment during the interview. While concern was expressed, the knowledge of how to better protect the environment was vague and participants did not provide concrete examples of what they could do to better protect the environment. The low score on the NEP scale despite interview responses indicating environmental concern could be a result of a lack of knowledge.

Environmental concern discussion and implications. Out of the nine participants in the qualitative portion of the study, two participants indicated that it was hard to engage in pro-environmental behaviors while living in Kuwait. Participant 4 indicated that although she was very concerned about the effect of pollution on her children, she did not know of anything that she could do about this problem. In addition, Participant 5 said that when she returned to Kuwait

after living in the UK she noticed that the culture in Kuwait was generally unaware of the effects of human behaviors on the environment.

It is apparent that education is needed in order to help many Kuwaitis understand why protecting the environment is important, and to teach them specific actions they can take to support the environment. It appears that participants' lower environmental concern on the quantitative scale may be due to a general lack of knowledge related to environmental issues. By better educating Kuwaitis about environmentally-friendly actions through special-interest programs in grade schools and universities, Kuwaitis may develop a more positive attitude toward ESA products and this could lead to higher ESA purchase intentions within the chosen population.

Summary and Discussion of Apparel and Textile Related Environmental Knowledge

The general score of the participants on the Environmental Sustainability Apparel Knowledge (ESAK) scale showed that participants had very little pre-existing knowledge of the environmental impacts of the apparel and textile manufacturing industry. The summed mean of the scale was 0.1294, which is very close to the mean score of 0 (don't know). Participants were most misinformed about facts related to natural fibers and often answered related items incorrectly because they falsely believed that natural fibers are generally better for the environment, even when they are highly processed. A majority of participants did correctly answer questions related to the harmful effects of chemical pollutants and the large amount of energy needed in apparel manufacturing.

The qualitative interviews revealed that the participants had a general lack of knowledge about apparel manufacturing. A few participants stated that they were completely unaware of the definition of environmental sustainability, and very few participants were able to provide a

definition of this term that was similar to the study's definition. Almost all of the participants said that they had never heard the term environmentally sustainable apparel prior to their participation in this study. None of the participants could name an environmentally sustainable fashion brand. Two participants even indicated that they did not believe apparel manufacturing had a detrimental effect on the environment. The other participants did provide some valid responses as to why the apparel industry negatively affects the environment, but none of the participants was able to name specific environmental issues caused by the industry. Overall, the interview responses seemed to support the survey findings. In both portions of the study, participants had little to no knowledge of the environmental impacts of the apparel and textile industry.

Knowledge is an important factor within the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), which was one of the theoretical frameworks supporting the design of this study. According to the TRA, knowledge is key to helping consumers achieve an understanding of the needs, costs, and rationale behind consuming ESA products (Thompson, Harden, Clauss, Fox, & Wild, 2012). Knowledge as a starting point for ESA purchase intentions was also supported by the findings of this study, which showed that knowledge influenced ESA attitudes and ESA attitudes influenced ESA purchase intentions.

AT related environmental knowledge discussion and implications. Overall, the scores on the ESAK scale and the responses of the qualitative interview showed the need for more ESA related education in Kuwait, especially when it comes to education about natural fibers. Although there were many areas related to the environmental impacts of the apparel and textile industry that the participants were unaware of, participants consistently implied that all natural fibers were preferable and seemed to believe that this type of material was beneficial to the

environment, which demonstrates that they possess false assumptions about this particular area of knowledge.

Many facts about the environmental impacts of apparel manufacturing are currently unknown within the population of interest, and some aspects are currently misunderstood. Because natural fibers are generally misunderstood by the population of interest currently, this area of education is needed the most in order to correct the current misconceptions. Other areas that are generally unknown and therefore need to be included in the further education of Kuwaitis about ESA. These areas include information about unsustainable growing practices, high water usage, and textile waste.

This type of information could be included in the curriculum of college courses or even incorporated as a special-interest program in grade schools. Additionally, participants had difficulty naming specific actions they could take to help the environment. Environmental education should also teach what Kuwaitis can do to help the environment on an individual level, including the action of purchasing ESA products.

Environmental education in Kuwait could gain additional benefits from the incorporation of systems thinking into its curriculum. Systems thinking is a teaching strategy where interconnected components are used as a constant flow of inputs and outputs, which shows that one piece of the system has the ability to affect others (Thompson, Harden, Clauss, Fox, & Wild, 2012). If such a program were supported by the Environment Public Authority (EPA) in Kuwait, the agency could use the program to educate youth as a pro-active measure to protect Kuwait against further environmental damage.

The current lack of knowledge and awareness of the environmental damage associated with apparel and textile manufacturing is a significant hurdle that must be overcome in Kuwait.

Having a publicly-supported, educational environmental program that included apparel manufacturing's environmental hazards and prevention methods would be one step toward overcoming this disadvantage. As was shown through the study's regressions and supported by the TRA, higher apparel and textile related environmental knowledge leads to more positive ESA attitudes, which leads to higher ESA purchase intentions.

Generally, manufacturers should create ESA clothing that is clearly marked as containing sustainable natural fibers. The qualitative interview responses showed a clear preference for wearing natural fibers. Many of the participants indicated that they preferred these fibers because they believed that they were better for their health than synthetic materials. ESA could benefit from this pre-existing preference. Additionally, clearly labeling products to emphasize that they are produced without harsh chemicals could also increase the products' appeal for consumers who are concerned with personal health. Hustvedt and Bernard's (2008) study found that individuals were willing to pay a premium price for socks that were labeled as organic over socks that were made from cotton and polylactic fibers. By clearly labeling apparel as organic and increasing the public's awareness of what this label means, a similar preference may be achieved in Kuwait.

Retailers of ESA products should focus on marketing why their natural fiber products are better for people over other natural fiber products. For example, retailers could advertise how their products do not include harmful chemicals, which could appeal to the many Kuwaitis who have health issues and sensitive skin.

Summary and Discussion of Attitudes towards ESA

The Attitudes toward ESA scale had a summed mean of 3.1398, which indicates that overall participants had neutral attitudes about ESA. A total of 59.4% of participants answered

that they did not believe ESA to be a worthwhile product. Additionally, 38.5% of participants indicated they would not purchase an ESA product, and 36% indicated they did not believe ESA products to be well-made products.

Attitudes towards ESA were very limited within the qualitative interview responses. Out of the nine participants in the qualitative portion of the study, only two participants provided statements that could be considered an ESA attitude. Participant 1 stated that she prefers to buy ESA products, but she also put her health before the environment. This was considered a positive attitude about ESA because she did say that she preferred ESA products. Participant 6 stated that she had purchased ESA products before, but that this was unintentional and the fact that the products were environmentally sustainable did not affect her decision either way. This comment was considered neutral because it was neither positive nor negative. Overall, both the quantitative and qualitative data showed that the participants had neutral or non-existent attitudes toward ESA. This may be because the participants had very limited previous knowledge about this topic.

Attitudes towards ESA discussion and implications. Although the overall mean was generally neutral on the quantitative scale, the attitudes toward ESA scale did reveal some areas related to ESA where the participants actually had negative attitudes. ESA attitudes within the qualitative portion of the study were nearly non-existent with only one participant demonstrating a positive attitude toward ESA and the rest of the participants demonstrating a neutral attitude or no opinion. Although the study had limited findings related to ESA attitudes in female Kuwaitis, other aspects of the study and the background research can be examined.

Environmental attitudes can be affected by society, which in the case of Kuwait is strongly influenced by religious practices. The Islamic religion plays an important role in

Kuwaiti society; therefore, its effect on environmental attitudes should be re-examined. As was repeatedly reported during the qualitative interviews, the Islamic religion calls for moderation and non-profusion. In terms of the self, the house, and surrounding places, which may also apply to the environment, Islam teaches the principles of cleanliness and purity. While there is a basis for encouraging a clean environment and a reduction in the use of natural resources under the principles of Islam, the practical application of this in today's environment in Kuwait is lacking.

Although environmental attitudes have the potential to be fostered under the principals of the Islamic religion, there may be other cultural barriers blocking this from occurring. One possibility is that Kuwait's short-term orientation may make it difficult for the long-term planning necessary for proper environmental conservation efforts to occur within the culture. Another possibility may be that because female Kuwaiti nationals have such limited knowledge on the subject of ESA specifically and environmental sustainability in general, the population of interest does not have enough knowledge to form attitudes about ESA.

While the culture's short-term orientation is not something that can be changed, there are ways to improve upon other potential barriers to positive ESA attitudes. For example, increasing the education of Kuwaitis on issues like the environmental impacts of the apparel manufacturing industry may help to increase the population's positive attitudes about ESA. This concept is supported by Fishbein and Ajzen (1975) who demonstrated that knowledge gained through religion, schooling, and parenting helps to form beliefs, which lead to the formation of attitudes. Knowledge about apparel and textile related environmental issues positively influencing attitudes about ESA was also supported by this study's quantitative data analysis.

For Kuwaitis, the concept of ESA can easily be supported by the Islamic religion, so now the education of Kuwaitis on this subject needs to be increased through special-interest programs

in both grade schools and universities, with a strong focus on systems thinking so that students and potential consumers can have a better understanding of how their individual actions affect the environment.

In terms of the manufacturing and marketing of ESA, Kuwaitis participating in the study had generally neutral attitudes about environmentally sustainable apparel but some negative attitudes were also present. Many of the quantitative questionnaire respondents reported that they did not believe ESA products to be quality or worth-while products. These beliefs could be very damaging to the sale of ESA products in Kuwait, especially because of Kuwait's ostentatious consumption. If the products are viewed as inferior in quality, then they will be avoided by many Kuwaitis.

The tendency of Kuwaiti customers to purchase products as a way of showing social rank means that low-quality products are often avoided. Therefore, it is essential that manufacturers produce environmentally sustainable apparel in a way that meets with Kuwaiti's high-quality and luxury expectations. Retailers of ESA products in Kuwait should be very aware of this tendency and advertise ESA as high quality and important products. If ESA can be successfully marketed as luxury products, then there will likely be a high demand for these products among Kuwaitis.

Summary and Discussion of ESA Purchase Intentions

ESA purchase intentions received the highest ratings out of all five of the scales used for this study. The ESA purchase intentions scale had an overall mean of 3.7065, which means that participants generally agreed that they would purchase ESA products in the future and tell a friend about ESA products. A total of 53.4% of participants agreed that they would purchase ESA in the future. In addition, 68.2% of participants agreed that they would tell a friend about ESA products.

Seven out of the nine women who participated in the qualitative portion of the study had never purchased an ESA product, and many of these participants also indicated that they did not know about ESA prior to the study. Out of the remaining two participants, one stated that she would purchase such products for the health of her children, and the other simply suggested that ESA products should have more advertisements and promotions.

The high ratings for ESA purchase intentions in the quantitative portion of the study indicate that Kuwaitis are willing to buy these products. This scale was unexpectedly high considering the neutral attitudes toward ESA and the general lack of knowledge about apparel manufacturing. This high purchase intention may be due to the high levels of consumerism within Kuwaiti culture or simply the participants' exposure to the concept of ESA through their participation in this study. It is possible that the participants rated purchasing behavior higher than all of the other scales simply because their culture strongly supports this behavior.

The high ratings for ESA purchase intentions in the quantitative portion of the study were not repeated in the qualitative portion of the study. This could be due to the fact that the quantitative survey measured future behavior, while the qualitative interview asked about previous behavior. Previous purchasing behavior was not reported because many participants stated that they were unaware of these products, did not know where to purchase such products, or even thought that such products were not sold within Kuwait.

ESA purchasing behavior discussion and implications. The qualitative interview revealed a potential selling point for ESA products. The one interviewed participant who indicated that she would like to purchase ESA products said that her reason for this was for the health of her children. This shows that although ESA is meant to support the health of the environment, also including the health of the consumer may be a method of gaining customers

with lower levels of environmental concern and apparel and textile related environmental knowledge.

Limitations of the Study

This study's findings are limited by a number of factors. First, the participants recruited for this study are not representative of all women in Kuwait. This study specifically focused on Kuwaiti nationals, and women who were not Kuwaiti nationals were removed from the data set. While this study provides insight into the cultural characteristics, the apparel and textile industry's environmental impacts knowledge, environmental concern, and ESA attitudes of female Kuwaiti nationals, this demographic does not encompass all women living in Kuwait. As was confirmed by the qualitative interviews, Kuwait is home to many migrants and women from these groups were not included. Women from different cultural backgrounds that currently live within Kuwait may have responded differently to the questions of the survey and interview.

Another limitation of the study is that the research was conducted in one language and then reported in another. Conducting the interviews in Arabic was necessary in order to communicate with the target population of female Kuwaiti nationals in the most effective and natural manner. Similarly, reporting the results in English was also necessary in order to reach a broader audience. While the translation process was necessary, the task was difficult. This was evident through many of the translations having to be adjusted for grammar and clarity multiple times. Although the process was challenging, the final translations are still valid and accurately represent the original Arabic interviews.

Finally, the reported measures of the VSM 2013 scale were limited in both their ability to be analyzed and compared to Hofstede's reported scores. The analysis was limited because this

study only included participants from one country. The VSM scale was design as a comparison measurement for the cultural characteristics of two or more countries (Hofstede, 2013). Because it was designed as a comparison measurement, in order to calculate the final score of the scale, a constant value must be determined based on the mean scores from multiple countries (Hofstede, 2013). The study's limited sample of only Kuwaiti participants means that the study is unable to provide final VSM scores that can be comparable to other countries. However, despite the study's inability to make the VSM scores comparable, the answers to this scale served well as a way of gaining insight into the cultural characteristics embodied by the study's sample.

The results of the ESA purchase intentions scale revealed another limitation of the study. It was found that participants who answered that they would not purchase ESA products on the Attitudes toward ESA scale often answered that they would purchase ESA products and tell friends about ESA products in the future on the ESA purchase intentions scale. Because this data was found to be contradictory, it is likely that the participants' participation in the study may have influenced the high ESA purchase intentions indicated at the end of the study. It may be that the very act of answering a series of questions about knowledge related to the environmental impacts of the apparel and textile industry, environmental concern, and environmental attitudes before being asked if they would purchase ESA might have been what caused such positive results on the ESA purchase intentions scale. In future studies, it is recommended that the ESA Purchase Intentions scale be presented first in the survey in order to avoid this potential bias.

Future Research Recommendations

Additional research needs to be conducted on the best methods of providing environmental education within Kuwait. This study has already identified some areas of apparel

and textile industry knowledge that are lacking in the studied population of female Kuwaiti nationals. The study also identified short-term orientation as one of the cultural dimensions of Kuwait that may be a barrier to environmental sustainability, pro-ESA attitudes, and ESA purchase behaviors. In order to effectively educate Kuwaitis about the long-term benefits of environmental sustainability and ESA products, teaching methods that can counteract the cultural effects of short-term orientation need to be developed and tested.

Future research can also focus on the replication of this study in different countries. The next study to be conducted in this area of research should incorporate multiple countries throughout the Middle East. By studying multiple countries at once, while using similar methods and measurements to this study, the study could produce results that have the potential to affect the education, manufacturing, and retail of ESA products across the entire region, not just in one country. The study of multiple countries at once would also have the added benefit of producing VSM 2013 scale measurements that are comparable across countries.

Additionally, this study's narrow focus group of female Kuwaiti nationals did not fully explore the variables of culture, AT environmental impact knowledge, environmental concern, ESA attitudes, and ESA purchase intentions within Kuwait as a whole. Future studies should be conducted to incorporate how these variables are affected by both male Kuwaiti nationals and by non-nationals living in Kuwait in order to have a more complete picture of the potential consumers of ESA in Kuwait.

Conclusion

This study focused on female Kuwaiti nationals as potential consumers of environmentally sustainable apparel (ESA). The study was divided into a quantitative analysis

and a qualitative analysis of the population's cultural characteristics, environmental concern, apparel and textile manufacturing environmental issues knowledge, ESA attitude, and ESA purchase behavior. The quantitative analysis consisted of a survey that included five previously developed scales that measured the various variables of interest. The qualitative analysis consisted of a semi-structured interview that asked participants about the same variables.

For measures of cultural characteristics as an aspect of subjective norms, the VSM 2013 scale responses for power distance supported the high power distance reported by Hofstede (2015), but the qualitative interview responses reported an open society with indistinguishable social classes, which goes against the high power distance measures. Hofstede's reported score of 25 on the individualism social dimension was supported by both the quantitative and the qualitative measures utilized by the study. Although Hofstede did not have a measure for Kuwait's long-term orientation, both the VSM 2013 mean scores in the quantitative survey and the participants' responses in the qualitative interview supported Kuwait having a low long-term orientation score. The qualitative interviews also revealed high levels of consumerism and ostentatious consumption within Kuwaiti culture.

The results of the study found that many of the variables were neutral or non-existent in one or both of the methods of study (quantitative and qualitative). The quantitative measure found a neutral level of environmental concern, but the qualitative measure found a positive level of environmental concern. The difference between these two measures is likely due to the lack of environmental knowledge held by the participants. Both the quantitative and the qualitative measures showed that participants were very limited in their pre-existing knowledge of the environmental impacts of the apparel and textile manufacturing industry. Participants also falsely believed that all natural fibers were beneficial to the environment. ESA attitudes were neutral in

the quantitative measurement, and almost non-existent in the qualitative measurement. ESA purchase behavior was found to be positive in the quantitative measurement, but it was almost non-existent in the qualitative measure with a majority of participants stating that they had never heard of ESA products before participating in this study.

Education is an important part of improving apparel and textile related knowledge. By improving this knowledge in the population of interest, the ESA attitudes and ESA purchase intentions of this group should also increase. Education should focus on areas of knowledge that are currently lacking or even misunderstood. These areas include the subjects of natural fibers, water usage, and wastefulness. Environmental education is also needed to teach female Kuwaiti nationals specific actions that they can personally take to help the environment, like purchasing ESA products. It is recommended that education be increased through special-interest programs in grade schools and universities that utilize the systems thinking strategy to show individuals how they can contribute to the larger system.

The consumerism and ostentatious consumption present within Kuwaiti culture has the potential to hurt ESA purchase intentions. If ESA products are viewed as low-quality by Kuwaitis, then such products will not be purchased. If retailers can market ESA products as luxury products, then these two cultural characteristics could actually benefit ESA purchase behaviors. Kuwaiti culture's short-term orientation was identified as another potential barrier to ESA attitudes and purchase intentions. If retailers advertise with a greater focus on the short-term benefits of their products, like personal health, then this cultural barrier could potentially be avoided. Because natural fibers are already preferred by many female Kuwaiti nationals, ESA retailers could advertise how their natural fibers are even better because they do not include any

harsh and potentially harmful chemicals. Finally, both manufacturers and retailers should take into consideration the cultural need for modesty among Kuwaiti women.

Several factors limited the study's findings. The findings are not comparable to non-Kuwaiti national women living in Kuwait. Additionally, the study being conducted in Arabic and reported in English did make the research process more challenging, but this factor does not affect the study's overall validity. Finally, the study's VSM 2013 measurements are not comparable to other countries or studies.

Future research should be conducted on the best environmental educational methods for Kuwait's short-term oriented society. Additional research utilizing similar measurements should be conducted in multiple countries across the Middle East in order to provide a more complete understanding of the region for ESA education, manufacturing, and retail. Including multiple countries within the study would also allow for VSM 2013 scores that can be fully calculated and compared with other countries. A study including both male and female Kuwaiti nationals and non-nationals should be conducted in order to better understand a broader range of consumers within Kuwait.

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Appendix A: Value Surveys Module 2013

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to...?

(1 = of utmost importance; 2 = very important; 3 = of moderate importance; 4 = of little importance; 5 = of very little or no importance)

1. Have sufficient time for your personal or home life
2. Have a boss (or direct superior) you can respect
3. Get recognition for good performance
4. Have security of employment
5. Have pleasant people to work with
6. Do work that is interesting
7. Be consulted by your boss in decisions involving your work
8. Live in a desirable area
9. Have a job respected by your family and friends
10. Have chances for promotion

In your private life, how important is each of the following to you?

(1 = of utmost importance; 2 = very important; 3 = of moderate importance; 4 = of little importance; 5 = of very little or no importance)

11. Keeping time free for fun
12. Moderation: having few desires
13. Doing a service to a friend
14. Thrift (not spending more than needed)
15. How often do you feel nervous or tense?
    a. Always
    b. Usually
    c. Sometimes
    d. Seldom
    e. Never

16. Are you a happy person?
    a. Always
    b. Usually
    c. Sometimes
    d. Seldom
    e. Never

17. Do other people or circumstances ever prevent you from doing what you really want to?
    a. Yes, always
    b. Yes, usually
    c. Sometimes
    d. No, seldom
    e. No, never

18. All in all, how would you describe your state of health these days?
    a. Very good
    b. Good
    c. Fair
    d. Poor
    e. Very poor

19. How proud are you to be a citizen of your country?
    a. Very proud
    b. Fairly proud
    c. Somewhat proud
    d. Not very proud
    e. Not proud at all

20. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher?)
    a. Never
    b. Seldom
    c. Sometimes
    d. Usually
    e. Always

To what extent do you agree or disagree with each of the following statements?

(1 = strongly agree; 2 = agree; 3 = undecided; 4 = disagree; 5 = strongly disagree)

21. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work.
22. Persistent efforts are the surest ways to results.
23. An organization structure in which certain subordinates have two bosses should be avoided at all cost.

24. A company's or organization's rules should not be broken - not even when the employee thinks breaking the rule would be in the organization's best interest.

Appendix B: New Ecological Paradigm Scale

Response Options: 7 = strongly agree, 1 = strongly disagree

1. We are approaching the limit of the number of people the Earth can support.
2. Humans have the right to modify the natural environment to suit their needs.*
3. When humans interfere with nature it often produces disastrous consequences.
4. Human ingenuity will insure that we do not make the Earth unlivable.
5. Humans are seriously abusing the environment.
6. The Earth has plenty of natural resources if we just learn how to develop them.*
7. Plants and animals have as much right as humans to exist.
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.
9. Despite our special abilities, humans are still subject to the laws of nature.
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.*
11. The Earth is like a spaceship with very limited room and resources.
12. Humans were meant to rule over the rest of nature.
13. The balance of nature is very delicate and easily upset.
14. Humans will eventually learn enough about how nature works to be able to control it.*
15. If things continue on their present course, we will soon experience a major ecological catastrophe.

* Designates items to be reverse coded.

Appendix C: Environmentally Sustainable Apparel

Knowledge Scale

1. Globally, more agrochemical insecticides are applied to cotton than any other major crop.
    a. True
    b. False
    c. Don't know

2. Growing enough cotton to make a pair of jeans (weighs 1.5 pounds) requires approximately 55% more water than what is needed to grow wheat for a loaf of bread (weighs 2 pounds).
    a. True
    b. False
    c. Don't know

3. The raw materials used to manufacture polyester and other synthetic fibers are derived from nonrenewable resources.
    a. True
    b. False
    c. Don't know

4. The raw material needed to make virgin polyester and other synthetic fibers is abundantly available.
    a. True
    b. False
    c. Don't know

5. Transforming the raw materials into polyester fibers is more energy intensive than cultivating cotton fiber.
    a. True
    b. False
    c. Don't know

6. Though it takes little to no water to produce synthetic fibers, it consumes large amounts of energy.
    a. True
    b. False
    c. Don't know

7. Chemicals used in textile processing can remain in aquatic systems for fifty or more years.
    a. True
    b. False
    c. Don't know

8. As much as 20% of ALL industrial water pollution comes from dyeing and finishing of textiles.
    a. True
    b. False
    c. Don't know

9. Transforming cotton fiber into denim fabric is more energy intensive than manufacturing jeans.
    a. True
    b. False
    c. Don't know

10. Many of the chemicals found in textile dyes are known and/or suspected carcinogens.
    a. True
    b. False
    c. Don't know

11. Chemical pollutants are produced during the manufacturing of textiles.
    a. True
    b. False
    c. Don't know

12. The manufacturing of clothing uses large amounts of energy.
    a. True
    b. False
    c. Don't know

13. Minimal fabric is wasted is wasted in the manufacturing of clothing.
    a. True
    b. False
    c. Don't know

14. A garment's fiber type affects the amount of greenhouse gases emitted into the atmosphere during home laundering (washing and drying).
    a. True
    b. False
    c. Don't know

15. Home laundering (washing and drying) of a 100% cotton t-shirt will have less of an environmental impact than the initial production of the cotton fiber and the manufacturing of the shirt.
    a. True
    b. False
    c. Don't know

16. In an industrial landfill, a 100% cotton garment will biodegrade within one or two months.
    a. True
    b. False
    c. Don't know

17. A majority of garments thrown away by consumers are diverted from landfills and recovered for reuse or recycling.
    a. True
    b. False
    c. Don't know

18. The production of textile and apparel products uses minimal amounts of water.
    a. True
    b. False
    c. Don't know

19. Though natural fibers such as cotton and wools are processed, dyed, and cleaned with large amounts of chemicals, they are still safe to the environment and people.
    a. True
    b. False
    c. Don't know

20. The use of larger quantities of natural fibers will significantly decrease energy consumption within the textile industry.
    a. True
    b. False
    c. Don't know

21. Which of the following consumes the most energy during fiber production?
    a. Cotton
    b. Polyester
    c. Don't know

22. Which of the following consumes the most water during fiber production?
    a. Cotton
    b. Polyester
    c. Don't know

23. Which consumes the least energy when drying in a home dryer: a load of 100% cotton items or a load of 100% polyester?
    a. The load of 100% cotton.
    b. The load of 100% polyester.
    c. Don't know

24. If placed in a home compost system, which would biodegrade faster, a 100% cotton t-shirt or a 100% polyester t-shirt?
    a. The 100% cotton t-shirt.
    b. The 100% polyester t-shirt.
    c. Don’t know

Appendix D: Attitudes toward Environmentally Sustainable Apparel Scale

Response Options: 5 = strongly agree, 1 = strongly disagree

1. I would not purchase an environmentally sustainable apparel product
2. Environmentally sustainable apparel is a mediocre product
3. Environmentally sustainable apparel is a high quality product*
4. Environmentally sustainable apparel is a poor value product
5. Environmentally sustainable apparel is a well-made product*
6. Environmentally sustainable apparel is boring
7. Environmentally sustainable apparel is a worthwhile product*
8. Environmentally sustainable apparel is easy to find*

* Designates items to be reverse coded.

Appendix E: Environmentally Sustainable Apparel Purchase Intentions Scale

Response Options: 5 = strongly agree, 1 = strongly disagree

1. In the future I intend to purchase environmentally sustainable apparel.
2. In the future I intend to tell a friend about environmentally sustainable apparel.

Appendix F: Demographic Information

1. What is your gender?
    a. Male
    b. Female

2. Are you a Kuwaiti citizen?
    a. Yes
    b. No

3. What was your nationality at birth?

4. How long have you lived in Kuwait? (Years)

5. What is your age?

6. What is the highest level of education you have obtained?

7. What is your monthly income?

Appendix G: Qualitative interview questions

1. How would you describe Kuwaiti culture to someone from another country?

General Apparel Consumption Behavior Questions

2. How do you feel being a Kuwaiti influences decision you make when purchasing apparel?
3. Name some of the things you look for when you judge whether or not apparel is worth purchasing.
4. How do your friends and family affect the decisions you make when purchasing apparel?
5. Do you believe that apparel helps to signify social class in Kuwait? Why or why not?
6. Do you consider yourself more or less religious than the average in Kuwait? Why? How does this affect your dress?

Apparel Manufacturing Knowledge Questions

7. Name some of the materials that you believe are used in creating a t-shirt. Where do these materials come from?
8. Where do you believe most t-shirts are made? How do they get to Kuwait?
9. Do you believe there are any environmentally damaging aspects in the process of creating a t-shirt and getting it to Kuwait? If so, what are they?

General Environmental Attitudes Questions

10. Are you concerned with the health of the environment? Why or why not?
11. What do you believe are the most important issues affecting the environment today?
12. What does the term "environmental sustainability" mean to you?
13. How do you believe society should respond to the damage caused to the environment by industrial practices?
14. How do you think Islamic beliefs influence attitudes and behaviors towards the environment?
15. How do you think being a Kuwaiti influences your attitudes about the state of the natural environment?

Environmentally Sustainable Apparel Questions

16. Do you know what "environmentally sustainable fashion" is?
17. Do you know the names of any environmentally sustainable fashion brands? If so, which ones? How do you know about these brands?
18. Have you purchased any environmentally sustainable apparel before?
    i. If so, what made you purchase that apparel?
        1. Are there aspects of your Kuwaiti culture that have encouraged this behavior?

    OR

    If not, what has prevented you from doing so?

    Are there aspects of your Kuwaiti culture that have prevented this behavior?

Appendix H: Code Book

Full variable name	SPSS variable name	Coding instructions
NEP scale	nep1 to nep15	1=strongly disagree, 5=strongly agree *Reverse code items: 2, 4, 6, 8, 10, 12, 14*
ESAK scale	esak1 to esak24	-1=incorrect, 0=I don't know, 1=correct *Recode according to answer key*
ESA Attitude scale	att1 to att8	1=strongly disagree, 5=strongly agree *Reverse code items: 1, 2, 4, 6*
VSM scale	vsm1 to vsm10	1=of utmost importance, 5=of very little or no importance
	vsm11 to vsm14	1=of utmost importance, 5=of very little or no importance
	vsm15 to vsm17	1=always, 5=never
	vsm18	1-very good, 5=very poor
	vsm19	1=very proud, 5=not proud at all
	vsm20	1=never, 5=always
	vsm21 to vsm24	1=strongly disagree, 5=strongly agree
Behavior scale	behave1 to behave2	1=strongly disagree, 5=strongly agree
Nationality	nation	open ended
Years in Kuwait	years	open ended
Age	Age	open ended
Level of Education	Edu	1=high school, 2=diploma, 3=bachelors, 4=higher education
Finished university	edudone	1=yes, 2=No
University Attended	univ	open ended
Monthly Income	income	1=less than KD 500, 2-KD 500-KD 1000, 3=KD 1000 – KD 2000, 4=more than KD 2000

Appendix I: Themes and Subthemes within the Qualitative Interview Responses

Research question	Themes	Subthemes	Subcategories
What are the Kuwaiti cultural characteristics identified by female Kuwaiti nationals?	• Kuwait Cultural Characteristics	• Kuwaiti Societal and Cultural Traits	• Political Traits • Educational Achievement Traits • International Influence on Kuwaiti Cultural Traits • Cultural Traits Associated with Kuwaiti Women
		• Standard of Living and Consumerism in Kuwait	• Income Level & Finances • Spending & Consumerism • Luxury
	• Kuwaiti Appearance Expectation	• Clothes and Social Class	
	• Apparel Characteristics Considered	• Effects on Kuwaiti's Decisions	• Friends & Family • General Community • Foreign Influences • Freedom of Choice • General Community • Foreign Influences
		• The Effects of the Islamic Religion on Kuwaitis • The Islamic Religion's Effect on Attitudes	• The Islamic Religion and Apparel • The Islamic Religion and the Environment

What is the level of environmental concern in female Kuwaiti nationals?	• General Environmental Attitudes	• Barriers to Forming Attitudes
What is the level of knowledge held by female Kuwaiti nationals about the environmental impacts of apparel manufacturing?	• Textile and Production Knowledge • General Environmental Knowledge • Environmentally Sustainable Apparel Knowledge	• Defining "Environmentally Sustainable Fashion" • Knowledge of Environmentally Sustainable Fashion Brands
What are the attitudes of female Kuwaiti nationals about ESA?	• Environmentally Sustainable Apparel (ESA) Attitudes	
What is the level of influence of female Kuwaiti National's environmental concern and knowledge about the environmental impacts of apparel	• General Environmental Attitudes • Textile and Production Knowledge • Environmentally Sustainable	• The Influence of Environmental Attitudes on ESA Attitudes • The Influence of Textile and Production Knowledge on ESA Attitudes

manufacturing on attitudes about ESA?	Apparel (ESA) Attitudes	
What is the level of influence of Kuwaiti cultural characteristics on attitudes about ESA?	• Kuwaiti Cultural Characteristics • Environmentally Sustainable Apparel (ESA) Attitudes	• The Influence of Kuwaiti Cultural Characteristics on ESA Attitudes
What is the level of influence of Kuwaiti attitudes about ESA on ESA purchase behaviors?	• Environmentally Sustainable Apparel (ESA) Attitudes • Environmentally Sustainable Apparel (ESA) Purchase Behaviors	• Influence of ESA Attitudes on ESA Purchase Behaviors
What is the level of engagement for female Kuwaiti nationals in ESA purchase behaviors?	• Environmentally Sustainable Apparel (ESA) Purchase Behaviors	