

Predicting environmentally responsible apparel consumption behavior of future apparel industry professionals: The role of environmental apparel knowledge, environmentalism and materialism

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Abstract:

The present study explored several critical constructs related to environmentally responsible apparel consumption, which include environmentalism, materialism and knowledge of environmental issues pertaining to apparel products. The research focused on apparel merchandising and design students (n = 233) as future industry professionals who will soon be driving industry decisions in apparel production and consumption. A proposed research model was subject to confirmatory factor analysis and structural equation modeling. The model explained 58% of the variance in environmentally responsible apparel consumption behavior. Environmental apparel knowledge positively influenced environmentalism, and, in turn, environmentalism had a significant positive influence on environmentally responsible apparel consumption behavior. On the contrary, environmental apparel knowledge did not significantly influence materialism, and, in turn, materialism was not related to environmentally responsible apparel consumption behavior. Practical implications and limitations of the present study are also discussed.

服装行业专业人士预测未来环保服装消费行为:环保服装知识的作用,环境保护主义和唯物主义的作用

虽然近年来绿色消费的研究一直激增,但是对影响可持续服装消费因素的研究仍然有限,所以研究者需要进一步理解消费者的绿色消费行为。研究发现主要研究结构与可持续服装消费的联系,如服装环境知识,态度和购买行为还未被确定。先前的研究表明,支持环保的态度并不总是能转化为支持环保的行为。对环保支持者的态度和行为方面的空白进行了研究,提出了一个将消费者价值观纳入预测支持环保行为态度的综合模型。本研究参考Kollmuss 和 Agyeman(2002)的模型作为研究概念框架,并包含了唯物主义价值与环境态度来预测对环境负责的服装消费行为。本研究调查了与服装消费相关的几个关键概念:唯物主义(价值),服装环境问题知识,环境保护主义(态度)。本研究有助于更好地理解为什么人们参与或者不参与可持续服装消费行为。

基于的概念框架和先前的研究,提出了研究模型和四个相关假设: H1 -服装环保知识影响环保主义; H2 -环保服装知识影响唯物主义; H3 -环保主义正影响环保相关的服装消费行为; 和H4 -唯物主义正影响对环境负责的服装消费行为。研究参与者是以参与服装项目的美国中西部大学的学生为主的便利样本。通过问卷调查收集数据,使用李克特量表(1 =非常不同意,7 =非常同意)对一下概念进行测量: 环境保护主义唯物主义,环保服装知识, 和对环境负责的服装消费行为。人口统计学的相关问题也包含在问卷内。使用SPSS 22.0软件进行描述性统计,可靠性分析,以及探索性因素分析(EFA)。使用Advanced statistical package Mplus 6.0进行验证性因子分析(CFA)和结构方程建模(SEM), 测试假设模型。

共收集了236份问卷,其中有效问卷为236份(其中,205份为女性)。参与者的年龄范围为18岁到31岁,大多数(96%)低于22岁。参与者平均年龄是20岁。通过探索性因子分析法确认本研究中各个概念的因子结构。因子载荷较低的项目($< .40$)被删除。此外,有高横向载荷($> .30$)或低共同性的项目也被剔除。除由两个项目构成的对环境负责的服装消费行为因子($\alpha = .33$)外,所有的子概念满足信度的要求($> .70$)。因此,没有对这个子概念进行进一步的分析。所有其他子概念的 Cronbach's α 值分布在.71到.89之间,表明其满足内部一致性的要求。

作为结构方程(SEM)的一部分,对模型使用极大似然估计进行了验证性因素分析(CFA)检验。测量模型拟合良好($\chi^2 = 264.24, df = 121, p < .001; CFI = .92; RMSEA = .07; SRMR = .08$)。测量模型数值满足收敛效度和区别效度。对结构模型进行检验,验证假设H1-H4之间的关系。结构模型显示模拟拟合良好($\chi^2 = 271.17, df = 123, p < .001; CFI = .91; RMSEA = .07; SRMR = .09$)。结论支持假设H1和H3的因果模型。服装环保知识对环境保护主义有正向影响($\beta = .25, p = .002$),并且环保主义对环保服装消费行为有正向影响($\beta = .76, p = .001$)。环境保护主义与服装知识和唯物主义没有显著的相关关系($\beta = .05, p = .444$)唯物主义和对环境负责的服装消费行为也没有显著的相关关系($\beta = -.03, p = .782$)。尽管在假设的方向上有路径系数,但没有达到统计学意义。因此,假设H2和H4是不被支持。总体而言,该模型解释了58%环保服装消费行为($R^2 = .58, p = .000$)。

研究结果表明,环境保护主义和对环境负责的行为之间具有显著正相关关系,这与先前的研究一致(eg Shim, 1995)。我们的研究结果支持先前研究的发现,即环保服装知

识对环境问题有正影响。然而, 研究发现环保服装知识与唯物主义没有显著关系, 这表明, 有更多的环保服装问题知识不能有效地降低其消费者对商品的渴望。研究结果也指出, 唯物主义与环保服装消费行为没有联系。

在这项研究中, 我们不仅建立了环境知识、环境问题之间的联系, 还将这种联系扩展到了环保服装消费行为中。这项研究从经验上证实了, 知识和态度以及态度和行为之间的理论上的联系。研究的结果证明知识能够影响态度, 反过来, 也能驱动行为。这对消费者行为的一般理论基础做了重大贡献, 尤其是对环境负责的服装消费行为。我们研究的结果指出教育在促进环保行为的过程中起核心作用。如果消费者更了解环境问题, 对环境问题的关注就越多, 转化为对环境负责任的行为就越多。进一步说, 这项研究的结果对那些在推广产品时想突出服装产品活包装的环保特性 (如, 回收和有机) 的服装营销商和广告商非常有价值。本研究的局限性在于参与者来自于美国中西部大学, 并且大多数样本是女性。因此, 研究结果可能并不适用于更广泛的人群。

Keywords: Sustainability | materialism | environmentalism | apparel consumption | environmental | apparel knowledge

关键词: 可持续发展 | 唯物主义 | 环境保护主义 | 服装消费 | 环保服装知识

Article:

1. Introduction

In the twenty-first century, the changing dynamics of the apparel market have led to an increase in the number of fashion seasons, lower product costs and flexibility in delivery time (Johansson, 2010). These trends are termed “fast fashion”, as characterized by a shortened fashion cycle and more frequent purchase and disposal of apparel items (Cachon & Swinney, 2011). Greater per capita apparel consumption and generation of waste (Schor, 2005) have contributed to a growing negative impact of the industry on the environment (Connell, 2010). Americans spent \$354 billion on new clothes and shoes in 2012 (Michael, 2014), which is roughly one-quarter of the world’s total apparel and footwear consumption. Per capita apparel and footwear consumption in the US market is the highest in the world, amounting to 62 garments and 7 pairs of shoes in the course of a year. Close to 80% of all garbage generated in the country is buried in landfills, and textiles and apparel constitute about 24 billion pounds a year “Close to 80% of all garbage generated in the country is buried in landfills, and textiles and apparel constitute about 24 billion pounds of that garbage each year” (Stiska, 2010).

Environmental sustainability requires efforts both from apparel firms, to produce green products, and from consumers, to modify their clothing consumption behavior to be more sustainable (Connell & Kozar, 2014). A Green Gauge report found that of 2,000 Americans surveyed, 87% were concerned about the environment (Connell, 2010). Green consumption has been gaining popularity in recent years (Hustvedt & Dickson, 2009; Yoo, Divita, & Kim, 2013). In the 2009 National Green Buying Research Survey, four out of every five people were willing to buy green products throughout the recession period (Vermillion & Peart, 2010).

Several academic studies have been conducted in the context of green apparel

consumption, such as bamboo textile and apparel purchase intentions (Yoo et al., 2013) and consumers' purchase intention and willingness to pay for organic cotton products (Hustvedt & Dickson, 2009; Maloney, Lee, Jackson, & Miller-Spillman, 2014). Studies have also analyzed the drivers of green product adoption (Cheung, Lam, & Lau, 2015). Although there has been a surge in "green consumption" research, there is limited understanding about factors influencing sustainable apparel consumption (Lee & Park, 2013; Manchiraju & Sadachar, 2014). Furthermore, findings on relationships among apparel environmental knowledge, attitude and purchasing behavior are inconclusive (Connell & Kozar, 2014). A seminal study by Kim and Damhorst (1998) reported that environmental concerns and knowledge did not clearly relate to environmentally responsible apparel consumption. Several other studies (eg Bamberg, 2003; Lee & Jackson, 2010; Nordlund & Garvill, 2002) have found that pro-environmental attitudes do not always translate into pro-environmental behavior. This pro-environmental attitude-behavior gap and barriers to pro-environmental behavior were also investigated by Kollmuss and Agyeman (2002). Predicting pro-environmental behavior is so complex that even the most influential models, such as linear models (ie knowledge leading to attitude leading to behavior), prosocial behavior models and sociological models have not been fully successful in giving an explanation for the gap between the possession of environmental knowledge, environmental awareness and displaying pro-environmental behavior (Kollmuss & Agyeman, 2002). To address this issue, Kollmuss and Agyeman (2002) suggested a comprehensive model in which values were included alongside attitudes in predicting pro-environmental behavior. The present study used Kollmuss and Agyeman's (2002) model as a framework and included materialistic values as an additional variable. Materialistic values – the importance an individual attaches to worldly possessions (Belk, 1984) – pose a hindrance to sustainable consumption (Jackson, 2005). Thus, with the goal of finding possible answers to the attitude-behavior gap, materialistic values were investigated in the present study.

Our study examined several critical constructs related to apparel consumption: materialism (values), knowledge of apparel environmental issues and environmentalism (attitude). This research contributes to a better understanding of the reasons why people might or might not engage in sustainable behaviors. More specifically, the present study focused on current apparel consumption practices among future apparel industry professionals in the US. It is important to understand the environmental attitudes and behaviors of college students majoring in apparel because in the decades to come they will not only be active consumers, but will also define sustainable practices of the global apparel industry.

2. Literature review and hypotheses

2.1. Environmental apparel knowledge and environmentalism

Environmental knowledge refers to "factual information that individuals have about the environment, the ecology of the planet, and the influence of human actions on the environment" (Arcury & Johnson, 1987, p. 32). Knowledge is a precondition for an individual's behavior (Bamberg & Moser, 2007). Increased knowledge about the environment leads to greater environmental concern (Bamberg & Moser, 2007). Furthermore, the assumption is that there is a close relationship between environmental knowledge, environmental attitude, or environmentalism (Arcury, 1990), and pro-environmental behavior (Kollmuss & Agyeman, 2002). This assumption is in accordance with the norm-activation model (NAM; Schwartz, 1977)

and self-interest based models (Ajzen, 1991; see also Park & Sohn, 2012). According to Ajzen (1991), beliefs/knowledge and attitude in a particular domain predicts an individual's behavior in the domain in question. Ellen, Wiener, and Cobb-Walgren (1991) found that individuals with greater environmental knowledge had greater environmental concern and a deeper belief that their efforts may contribute to solving environmental problems. In a meta-analytic study, Bamberg and Moser (2007) found that knowledge was an important antecedent to pro-environmental attitudes and behavioral intention. Based on the theoretical link between the knowledge/beliefs and attitudes, the following hypothesis was proposed:

H1: Environmental apparel knowledge is positively related to environmentalism.

2.2. Environmental apparel knowledge and materialism

Materialism is a consumer economic value emphasizing the type and quantity of goods consumed (Richins & Dawson, 1992). An individual with materialistic values places high importance on worldly goods (Belk, 1984). Richins and Dawson's (1992) conceptualization of materialism as a personal value has been widely accepted (Manchiraju, 2013). Banerjee and McKeage (1994) argue that materialists do not hold environmental protection as a core value, and this sentiment has been echoed by various scholars (eg Jackson, 2005; Kilbourne & Pickett, 2008). Furthermore, materialism is a pervasive value in the American culture (Wachtel, 1983), and is a value much older than environmentalism (Kilbourne & Pickett, 2008). Thus, it has been maintained that individuals' cognitive structures are more integrated with materialism values than environmentalism values, such that higher materialistic values are negatively correlated with one's environmental beliefs/knowledge. Kilbourne and Pickett (2008) demonstrated that an individual's level of materialism is negatively related to environmental concerns and knowledge. Based on (1) Kollmuss and Agyeman's (2002) comprehensive model linking knowledge, attitudes and values and (2) extant research, the following hypothesis was proposed:

H2: Environmental apparel knowledge is negatively related to materialism.

2.3. Environmentalism and environmentally responsible apparel consumption behavior

Environmentalism is a broad philosophy and social movement regarding concerns for environmental conservation and improvement of the state of the environment (Lincoln, 2009).¹ Concern for the environment has been conceptualized as an attitude (Gray, Borden, & Weigel, 1985). The environmentalism scale used in this study was developed by Banerjee and McKeage (1994), and is a combination and refinement of scales used in extant research (eg Dunlap & Van Leire, 1978; Weigel & Weigel, 1978). Banerjee and McKeage's (1994) thorough conceptualization of environmentalism includes a global level of concern and involves components such as: (1) beliefs about the relationship between humans and nature (Dunlap & Van Leire, 1984); (2) beliefs about the importance of the environment to the self; (3) beliefs that current environmental conditions are serious problems facing the world (Murch, 1974); and (4) beliefs that some radical changes in current lifestyles and economic systems may be required to prevent environmental damage (Catton & Dunlap, 1980).

Belief/knowledge is a necessary prerequisite to form an attitude, which in turn is known

to drive behavioral intention and behavior, according to the NAM (Schwartz, 1977) and the Theory of Planned Behavior (Ajzen, 1991). Multiple studies have corroborated that attitude is a good predictor of behavior (Armitage & Conner, 2001). For example, purchase behavior of products made of recycled material was predicted through favorability of environmental attitudes (Minton & Rose, 1997). Fraj and Martinez (2007) found that consumers who are concerned about environmental issues are prone to act in an environmentally friendly manner. Similarly, consumers' environmentally friendly buying behavior was predicted through environmental concern and past environmentally friendly behavior (Khare, 2015). Based on the theoretical propositions and empirical research, the following hypothesis was proposed:

H3: Environmentalism is positively related to environmentally responsible apparel consumption behavior.

2.4. Materialism and environmentally responsible apparel consumption behavior

Researchers have suggested negative implications of individuals' materialism for the environment (Ghadrian, 2010; Manchiraju, 2013). Porritt (1984) maintained that a materialistic lifestyle is among the root causes of the present environmental decline. In a meta-analytic study, Hurst, Dittmar, Bond, and Kasser (2013) found that materialism was negatively related to pro-environmental attitude and behavior. Based on Kollmuss and Agyeman's (2002) comprehensive model linking values and pro-environmental behavior, as well as extant research, the following hypothesis was proposed:

H4: Materialism is negatively related to environmentally responsible apparel consumption behavior.

Based on Kollmuss and Agyeman's (2002) comprehensive model linking knowledge, attitudes and values with pro-environmental behavior, we proposed a conceptual model to examine the relationships between: (1) environmental knowledge specific to apparel production, consumption, and disposal; (2) environmentalism; (3) materialism; and (4) environmentally responsible apparel consumption behavior (see Figure 1).

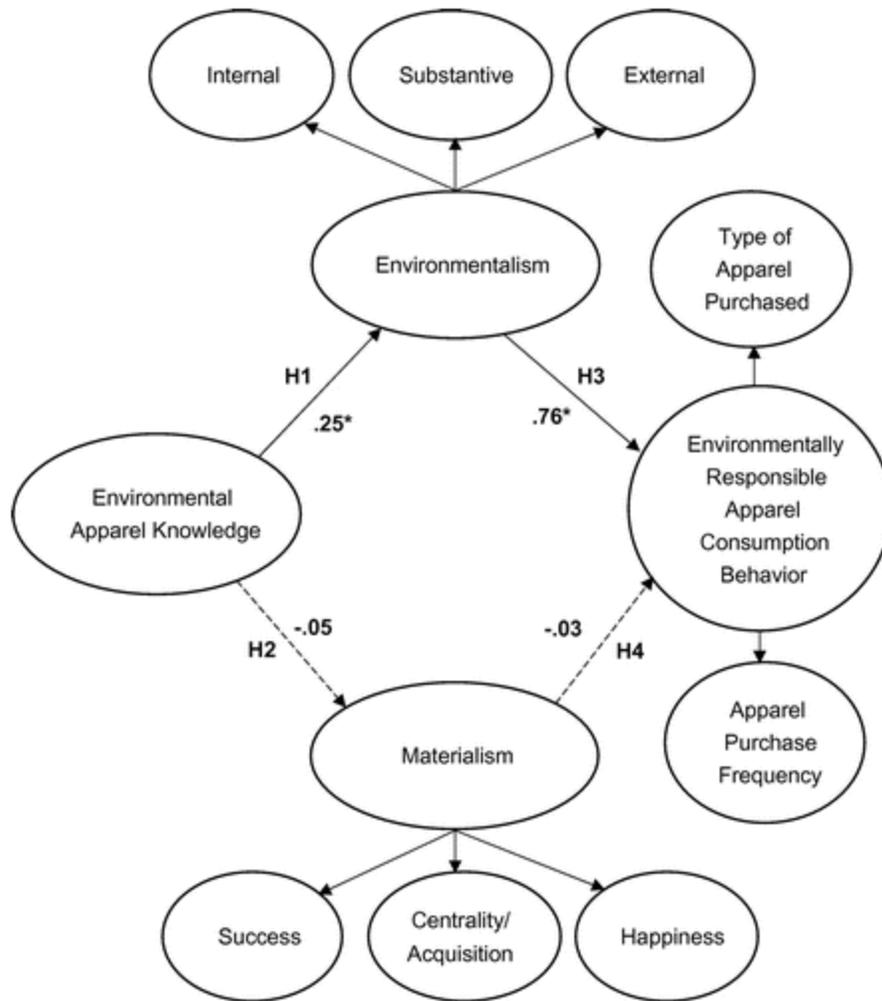


Figure 1. Research model: Structural modelings showing path coefficients
 Notes: Dotted lines indicate insignificant paths * $p < .05$, $R^2 = .58$

3. Research method

3.1. Sample and procedure

Research participants were a convenience sample of undergraduate students enrolled in an apparel program in a large land-grant Midwestern university. The study was approved by the university's Human Subject Review Board. Data were collected through a paper-based survey that was administered during class periods. Students in several upper-level, large-size lecture courses were invited to complete the survey for a small extra credit toward their grade. The survey consisted of 7-point Likert-type scales (1 = Strongly Disagree, 7 = Strongly Agree) measuring environmentalism (Banerjee & McKeage, 1994), materialism (Richins & Dawson, 1992), environmental apparel knowledge (Kim & Damhorst, 1998) and environmentally responsible apparel consumption behavior (Kim & Damhorst, 1998). Demographic items were also included.

Environmentalism was measured by 19 items (seven internal environmentalism, six substantive environmentalism and six external environmentalism) as developed by Banerjee and McKeage (1994). Materialism was measured using 18 items (five happiness, seven acquisition centrality and six possession-related success) developed by Richins and Dawson (1992). Environmental apparel knowledge was measured by 10 items (Kim & Damhorst, 1998). The scale explored respondents' knowledge of the impact of apparel products on the environment. Items were composed of knowledge about the processing of fibers, recyclability of fibers, contribution of textile products to waste disposal and by-products from cleaning agents (Kim & Damhorst, 1998). Environmentally responsible apparel consumption behavior was measured by 13 items: eight items on purchase behavior (from Kim & Damhorst, 1998, eg "I buy apparel made from recycled material"); two items related to apparel purchase frequency (eg "I buy new apparel styles every season to keep up with current fashion trends"); two items related to apparel disposal behavior (eg "When I no longer like apparel, I just throw it away"); and one item related to apparel price ("Apparel price is more important to me than its environmental characteristics").

3.2. Data analysis

A variety of statistical techniques were employed in the analyses of the survey data. First, descriptive statistics were performed on participants' demographic characteristics. Second, exploratory factor analysis (EFA) using SPSS 22.0 software was conducted with items for each construct to identify the factor structures. Third, the internal scale reliability of items comprising each factor was calculated using Cronbach's α coefficient. Fourth, the measurement model (confirmatory factor analysis (CFA)) and the structural equation model (SEM) were tested using the advanced statistical package MPlus 6.0. The structural model allowed for testing of the proposed hypothesized model represented in Figure 1.

4. Results

4.1. Preliminary analysis

A total of 236 responses were collected, and 233 (205 females) responses were deemed usable. The participants' ages ranged from 18 to 31, with the majority (96%) below 22 years of age. The average participant was 20 years old.

EFA confirmed three subscales for the three research variables: materialism, environmentalism and environmentally responsible apparel consumption behavior (Figure 1). Using EFA, items exhibiting low factor loadings ($< .40$) were deleted. Additionally, items with high cross loadings ($> .30$) or low communalities were eliminated (Hair, Anderson, Tatham, & Black, 1998). This process resulted in the deletion of three items from the environmental apparel knowledge scale, one item from the acquisition centrality (materialism subscale) and three items from the type of apparel purchased subscale, which included one item related to apparel price.

After the EFA, reliability of each sub-construct was assessed using Cronbach's α coefficient for a minimum acceptable level of .70 (Hair et al., 1998). All sub-constructs satisfied this requirement except environmentally responsible apparel disposal behavior, which consisted of two items ($\alpha = .33$). Therefore, this sub-construct was not considered for further analysis. Cronbach's α for other sub-constructs were as follows: types of apparel purchased (environmentally responsible apparel purchase behavior) .83; apparel purchase frequency .71;

internal environmentalism .89; substantive environmentalism .86; external environmentalism .78; materialism success .77; materialism acquisition centrality .73; materialism happiness .78; and environmental apparel knowledge .84.

4.2. Measurement model

With the intention of testing the hypothesized relationships (H1–H4) among the four variables of the study and in order to simplify the structural paths, higher order constructs represented by their sub-constructs were used in the model testing. As environmentalism, materialism and environmentally responsible apparel consumption behavior are multidimensional constructs, the measurement model included these constructs as second order constructs, whereas environmental apparel knowledge was included as a first order construct. To maintain consistency in the level of abstraction across all constructs (Bagozzi & Heatherton, 1994), such a partial aggregation measurement model is preferred in the case of multidimensional constructs (Ahuvia & Wong, 2002).

The proposed model (Figure 1) was tested through confirmatory factor analysis (CFA) as a part of structural equation modeling (SEM) using a maximum-likelihood estimation procedure. The present study used an item parceling technique. In the parceling process, parcels are formed by averaging the scores of two or more items and using these parcels to represent the item scores (Bandalos, 2002). Because fewer parameters are estimated using parceling, parameter estimates become more stable (Bagozzi & Heatherton, 1994) and produce a better model fit (Thompson & Melancon, 1996). The measurement model with parceled items resulted in an acceptable model fit ($\chi^2 = 264.24$, $df = 121$, $p < .001$; CFI = .92; RMSEA = .07; SRMR = .08). Overall, coefficient α for environmental apparel knowledge, environmentalism, materialism and environmentally responsible apparel consumption behavior constructs were .84, .90, .86 and .75 respectively, indicating satisfactory reliability. Convergent validity for each construct was determined through the fact that all factor loadings were significant (t -values ranged from 5.94 to 22.04, $p < .001$) and average variance extracted (AVE) for each construct was higher than or equal to .50 (ranged from .50 to .75) (Hair et al., 1998). Based on the comparison of AVE with the squared correlations between constructs (Fornell & Larcker, 1981), it was found that for each pair of constructs, the squared correlations between the two constructs were less than the AVE for each construct. Based on this result, a measurement model satisfied the condition for discriminant validity.

4.3. Structural model: hypotheses testing results

A structural model using an item parceling technique was tested to examine the hypothesized relationships indicated by H1–H4. Figure 1 indicates the estimated path coefficients and their significance levels in the structural model. The structural model showed acceptable fit based on the established fit indices ($\chi^2 = 271.17$, $df = 123$, $p < .001$; CFI = .91; RMSEA = .07; SRMR = .09). The causal model supported hypotheses H1 and H3. Environmental apparel knowledge was positively related to environmentalism ($\beta = .25$, $p = .002$), and environmentalism was positively related to environmentally responsible apparel consumption behavior ($\beta = .76$, $p = .001$). There was no significant relationship between environmental apparel knowledge and materialism ($\beta = -.05$, $p = .444$) and materialism and environmentally responsible apparel consumption behavior ($\beta = -.03$, $p = .782$). Although the

path coefficients' magnitudes were in the proposed direction, they failed to reach statistical significance. Thus, hypotheses H2 and H4 were not supported. The model explained 58% of the variance in the environmentally responsible apparel consumption behavior ($R^2 = .58$, $p = .000$).

5. Discussion and conclusions

In this study, we examined how environmentalism and materialism influenced the environmentally responsible apparel consumption behavior of college students majoring in apparel merchandising and design. The influence of environmental apparel knowledge on both environmentalism and materialism was also tested. The results indicated that environmental apparel knowledge had a significant positive influence on environmentalism, which in turn had a significant positive influence on environmentally responsible apparel consumption behavior. On the contrary, environmental apparel knowledge did not influence materialism, which was not related to environmentally responsible apparel consumption behavior.

The findings are consistent with previous research (eg Arcury, 1990; Shim, 1995). For example, Shim (1995) found a positive relationship between environmental attitude and environmentally oriented clothing disposal. At the same time, our findings contradicted the conclusions by Kim and Damhorst (1998), who reported an insignificant relationship between environmental concerns and environmentally responsible apparel consumption behavior. This contradictory result might be due to two things: first, the difference in the student sample composition; second, the greater emphasis on environmental issues over the past two decades.

Our results also supported the previous research findings that environmental apparel knowledge has a positive influence on environmental concern (eg Arcury & Johnson, 1987; Kim & Damhorst, 1998). However, environmental apparel knowledge did not have any association with materialism, which indicated that greater knowledge of environmental apparel issues is unlikely to effectively decrease people's desire for possessions. Materialism had no association with environmentally responsible apparel consumption behavior. It is possible that materialists, who rely on impression management using possessions, are likely to follow the current "green" trend.

6. Implications, limitations, and future research

In this study, we have not only empirically established the link between environmental knowledge and environmental concern, but also extended this link to environmentally responsible apparel consumption behavior. In other words, the study empirically confirmed the theoretical link between knowledge and attitude, as well as between attitude and behavior. This result corroborates that knowledge affects attitude, which, in turn, drives behavior. This is a significant contribution to the theoretical underpinnings of consumer behavior in general, and environmentally responsible apparel consumption behavior in particular.

The findings of our study point to the central role of education in promoting environmentally responsible behavior. The more knowledgeable consumers are about environmental issues, the more environmental concern they will have, which translates into environmentally responsible behavior. This result is critical, not only for educators and non-profit organizations, but also for apparel companies wanting to promote environmentally responsible apparel products, services and practices.

The participants in our study were students majoring in apparel. Therefore, they represent

future professionals who will define the industry's sustainable initiatives and practices in the next several decades. To date, to our knowledge, no study has focused on environmentally responsible apparel consumption using this specific sample. Therefore, the present study contributes to our understanding of future apparel industry professionals' environmental apparel knowledge, environmentalism, materialism and environmentally responsible apparel consumption behavior relationships.

The present study has several limitations. First, the participants were recruited from one Midwestern university. Second, the majority of the sample consisted of female participants, which is typical of students majoring in apparel and the industry's gender distribution (Karpova, Garrin, & Lee, 2015). Consequently, the research findings might not be generalizable to a broader population. Future studies can investigate apparel major students in other universities or countries and/or majors and a more diverse sample can be recruited. Employing qualitative and mixed methods to explore the issue of apparel green consumption behavior might be useful to understand deep-rooted motivations for related attitudes and behaviors.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. In this paper, "environmentally responsible apparel consumption" and "green consumption" are used interchangeably.

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