

Consumers' Purchasing Intentions toward Sustainable Apparel in US

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Abstract

The purpose of this study was to examine understanding consumers' purchasing intention toward sustainable apparel regarding buying experience, majors, and age. A random sample of 172 undergraduate students completed a questionnaire that contained measures of demographic information, past sustainable buying experiences, and purchasing intentions toward sustainable apparel. Based on literature review, three research questions were proposed. For data analysis, descriptive statistics and t-test were used. Based on these results, this research provided acceptable information based upon the consumer's purchasing intentions toward sustainable apparel, after being placed into groups of buyers and non-buyers. Buyers had more willing to purchase sustainable apparel than non-buyers. Also the results revealed that fashion majors hold a higher level of significance than non-fashion majors and their intentions to purchase sustainable apparel. Finally, older students (over 21 years old) have more purchasing intentions toward sustainable apparel than younger students (under 21 years old). Based on these results, some implications for educators and marketers would be suggested.

Key Words : Sustainable apparel, Purchasing intentions, Social responsibility, American consumers

I. Introduction

Today, fashion industry focuses on providing an abundant assortment of clothing worldwide. Although most consumers take clothing for granted, it is important to understand the labor intensive processes in developing them, as well as the effects that it has had on the environment.

The complex relationship between the global environment and the textile and apparel industries creates important factors that consumers should be aware of¹⁾. For decades consumers in the global world have slowly become attentive to the underlying effects of the polluted environment. Consumers have overlooked the importance of environmental harm in past years, however, in the recent year:

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society in each country has made it a vital concern to focus its efforts on improving this polluted environment²⁾.

Within this situation, the notion of environmentally friendly apparel or sustainable apparel is increasingly paid attention in the fashion industry³⁾. All areas of the fashion industry including supplies/manufactures, designers, retailers, and consumers have been started to focus on environmental friendly apparel from both the business and government.

Likewise, the issue of sustainable apparel or environmentally friendly apparel has been paid attention by practitioners or scholars. However, although the interest about the sustainable apparel has been increased by the society, there is still little research about sustainable or eco-friendly apparel in fashion area. To be able to effectively improve the environment depends on how consumers' values and attitudes are understood.

Therefore, the main objective of the research was to explore consumer's purchasing intentions and awareness of sustainable apparel products and their willingness to consciously spend more on them.

II. Literature Review

1. Current Trends of Sustainability in the Apparel Industry

Sustainability and social responsibility is currently one of the most popular issues appealing the apparel and textile industries. Over the past decade, "natural", "organic" or "green" terms have been used to describe daily social and political activities that support more sustainable ways of providing products and merchandises to consumers⁴⁾. All products which

come from a natural resource unquestionably has been to be examined to find more efficient ways of production that are not hazardous to the environment and apparel and textiles are no exception.

The negative effects of apparel production can be seen in many aspects of the environment, and even on consumers⁵⁾. In order to produce new apparel without neglecting the environment at the same time, it is necessary wholly rethink how the apparel can be designed, how materials and resources are used, and what processes can be chosen to implement in a way that is evenly beneficial to the environment and consumers⁶⁾. The global economy would be influenced by the lack of concern about negative effect on environment for the future. It is well known that the effects of apparel production can damage the environment in more ways than one⁷⁾. For example, the weather-dye run off of poisoning the fish and pesticides residues are sinking into bloodstream and jeopardizing people's health.

Green fashion, eco fashion, ethical fashion, future fashion, and sustainability indicate the growing environmental issues facing the apparel and textile industries⁸⁾. The concept of environmentally friendly apparel goes much further than the fiber content of a piece of clothing, green apparel refers to the constructing fashionable garment through the use of fabrics that are friendly to the environment. Environmentally friendly apparel includes growing cotton without pesticides, recycling plastic bottles into textiles, and coloring fabrics without the use of harmful chemicals and bleaches⁹⁾. Bamboo is also an excellent material for environmentally friendly apparel as it affects positive impact on the environment and benefits the consumers who wear the garments¹⁰⁾.

Bamboo garments can be very durable and comfortable to the human skin. This is a vast benefit of a fiber in the fashion industry, and a main resource in the sustainable apparel marketplace.

The fact that many fashion companies are making their efforts to help the environment is significant because it delivers knowledge and awareness about eco-friendly or sustainable apparel to many consumers in many ways. The retailers even can become a classroom of sorts, where consumers can learn about eco-friendly consumption and apparel's impact on environment¹¹. These directions can be what spurs insight and sparks future trends of sustainability in apparel industry.

The fashion show has seen many occasions recently that showcase sustainability and fashion ethics in the industry. Many famous designers such as Givenchy, Versace, Burberry, Stella McCartney, Yves Saint Laurent, Michael Kors, Donna Karan, and Calvin Klein were involved in the Future Fashion Show hosted by Earth Pledge¹². This initiative was developed to educate and demonstrate to the fashion industry and fashion consumers¹³. The fashion show was very successful, differing from other fashion shows in the past, supporting that this issue stands as a great concern in consumers' minds.

The Earth Pledge Initiative in itself has grown extremely in the recent years, with its library of sustainable resources growing from 50 materials four years ago, to over 600 materials today¹⁴. Development of the variety of materials indicates increased interest and what the fashion industry's future might carry¹⁵.

Beside apparel industry, the textile industry is also especially important in broadening sustainable awareness because the natural fibers that are used to produce fabrics provide

consumers' daily garments. With the replacement of man-made fibers with natural, more sustainable fibers, the textile industry is helping to progress the overall environmental movement through the whole apparel industry¹⁶. In sum, apparel and textile has the significant relationship with the global environment.

2. Sustainable Apparel & Consumer behavior

Eco friendly or sustainable apparel has been grown in consumers' knowledge and their awareness. Increasing a deeper understanding of environmental attitudes or behavior towards the environment allows the apparel industry to build environmentally friendly awareness among such concerns.

However, previous studies have revealed that consumers possess a limited amount of knowledge in factors that are related toward sustainable apparel, and they need a better knowledge to be aware of more eco conscious.

A study of Domina and Koch¹⁷ found that college students tend to develop their awareness of environmental issues from campus events and their taking coursework. They suggested that college students has become educated in their knowledge towards environmentally eco-friendly products, especially eco-friendly apparel from classroom lessons.

One research¹⁸ pointed out that generally consumers tend to purchase and to be willing to purchase sustainable apparel if the clothing is fashionable and is in a competitive price. Also this study indicates that female students had higher scores on environmental attitude than male students, suggesting that female students are more interested in sustainable issue than male students.

Another research has suggested that age is an important factor influencing attitudes toward

sustainable apparel consumption¹⁹⁾. Young consumers tend to be more greatly influenced by their peers than old consumers, because they feel the acceptance from their peers when they purchase apparel. On the other hand, within the same college students, the older students such as junior or senior might have a higher awareness or knowledge toward sustainable apparel than younger students such as freshmen or sophomore students due to education about sustainable issue from coursework.

Therefore, based on literature above, there are three research questions set up for this study as follows.

Research Question 1: There are the differences of purchasing intentions between Buyers and Non-Buyers.

Research Question 2: There are the differences of purchasing intentions between fashion and non-fashion majors.

Research Question 3: There are the differences of purchasing intentions toward sustainable apparel between age groups.

III. Methodology

1. Sampling & Data Collection

This study focuses on the use of sustainable apparel by female college students enrolled in a 4-year university at a Midwestern area in US. Generally female college students are well-known as fashion-conscious and frequent shoppers, keeping with current trends. As mentioned before, female students are more involved in sustainable apparel than male students so that female students might be appropriate for using for this environmental study.

The research methods used will consist of

quantitative research in order to analyze young women's attitudes toward sustainable apparel and increased knowledge of the impact of sustainable apparel on the environment as well as the apparel industry. A self-administered survey was developed and distributed from undergraduate courses in a Midwestern university for a random sample of young female consumers.

2. Survey Instrument

The survey instrument consisted of a group of questionnaires distributed to 177 female college students. After removal of inappropriate responses, a total of 172 subjects were used for data analysis.

The questions used directly related to the research of the use of sustainable apparel and were based on the research questions in the following section. The first section of the questionnaire consisted of questions that focus on the general shopping behavior and purchasing intentions toward sustainable apparel rated by a five-point scale. The ten items about purchasing intentions toward sustainable apparel were revised based on the existing sustainable consumption scale²⁰⁾ and were used for the questionnaire (e.g., Are you willing to spend more on an article of clothing that is "eco-friendly"? Are you aware of the benefits of "green" apparel? etc.). The second part of the questionnaire consisted of fill-in-the-blank questions that were answered by the sample of women to identify their age, major, and past sustainable buying experiences if they had purchased sustainable products before.

3. Data Analysis

Data collection was based on our dependent

and independent variables. The dependent variables consisted of consumers' purchasing intentions based on apparel products. The independent variables included consumers' major, monthly spending on apparel products, age, and their placement into groups of buyers or non-buyers. The research conducted is based on the following four research questions and their answer choices. For data analysis, descriptive statistics, t-test, and Cronbach's Alpha were used. The scale reliability of purchasing intentions toward sustainable apparel showed higher than 0.80.

IV. Results

1. Demographic Information

The mean of the sample was 21.2 years old. The majority of the sample is of the age of 21 years, and they make up 31% of the number of volunteer participants. Those who are 19 and 20 years of age make up an even 18% of participants each. Twenty-nine percent of the survey participants are either the age of 22 or 23 years. This is a substantial age distribution to complete the demographics for our research because there are a significant amount of total participants who define the targeted age range of 18–30 years of age for this study. Among participants, 90 students are in fashion majors,

while 82 students are in non-fashion majors such as business, psychology, art, and education etc.

The question of the amount of money spent in a month on apparel by the female participants was asked. Forty percent of our participants spend \$50–\$100 per month on apparel purchases. The next two leading range of dollar spending amounts are the under \$50 range and the \$100–\$300 range. They showed 29% and 25% respectively of the number of participants monthly spending. Only 6% of the sample spends \$300–\$1000 a month on apparel purchases. Also 25% of the sample has purchased sustainable items.

2. Purchasing Intentions toward sustainable apparel by buying experiences

To test Research Question 1, t-test was performed. As a result, there is consist with other findings, this study showed that sustainable apparel buyers are found to have higher levels of purchasing intentions toward sustainable apparel than non-buyers significantly <Table 1>. Thus, RQ 1 was supported.

3. Purchasing Intentions toward Sustainable Apparel by Majors

Research Question 2 was also tested using t-test if there will be difference in majors between

<Table 1> Purchasing intentions toward sustainable apparel by buying experiences

	Buyers (N=43)		Non-Buyers (N=129)		t-value
	M	SD	M	SD	
Purchasing Intentions toward sustainable apparel	3.66	3.15	3.17	3.08	8.58**

**p<.01

<Table 2> Purchasing intentions toward sustainable apparel by majors

	Fashion Major (N=90)		Non-Fashion Major (N=82)		t-value
	M	SD	M	SD	
Purchasing Intentions toward sustainable apparel	4.21	3.25	3.51	3.34	14.08***

*** $p < .001$

<Table 3> Purchasing intentions toward sustainable apparel by age groups

	Under 21 years old (N=85)		Over 21 years old (N=87)		t-value
	M	SD	M	SD	
Purchasing Intentions toward sustainable apparel	3.44	3.01	3.92	3.22	-9.21**

** $p < .01$

fashion major and non-fashion majors <Table 2>. The result revealed that fashion major students showed higher scores on purchasing intentions toward sustainable apparel than business major students.

4. Purchasing Intentions toward sustainable apparel by Age groups

To understand the differences of purchasing intentions toward sustainable apparel between two groups (under 21 years of age vs over 21 years of age), t-test were used <Table 3>. As the results, over 21 years of age group showed higher scores on purchasing intentions toward sustainable apparel than under 21 years of age group. As pointed out before, it can be assumed that the older students have more chances to learn about sustainable apparel than the younger students during course work.

V. Conclusion

The purpose of this study was to examine understanding consumers' purchasing intention toward sustainable apparel regarding buying experience, majors, and age. Based on these results, this research provided acceptable information based upon the consumer's purchasing intentions toward sustainable apparel, after being placed into groups of buyers and non-buyers. Buyers had more willing to purchase sustainable apparel than non-buyers. Also the results revealed that fashion majors hold a higher level of significance than non-fashion majors and their intentions to purchase sustainable apparel. Finally, older students (over 21 years old) have more purchasing intentions toward sustainable apparel than younger students (under 21 years old).

These results would give insightful implications to educators and marketers. Research suggests

it is the industries' responsibility to educate young consumers such as college students on their eco friendly practices and show the importance of such practices as well as the school's responsibility. The industry's informative efforts strive to encourage consumers to become loyal to their ethical practices. Also the significant implications from this research is that in order for consumers to adopt the concept of "going green" one must take into the fact that information needs to be more broad. From the marketers point of view targeting green apparel towards individuals who have a keen fashion sense, and tend to purchase more apparel than the average person, will help boost their sales while also ensuring great benefits on the economy.

For future research, it is necessary to investigate sustainable consumption among multiple age sets. As the scope of this study was limited, further research should be conducted with more representative college students and possibly age groups. This may reflect broader demographical characteristics and would add additional credibility to the finding. In addition, it would be better idea to broaden this study to males and other consumers such as older women or specific non-merchandising majors who maybe have a concentrated interest in fashion or other aspects of the apparel industry. Second, as it was beyond the scope of this study, it would be interesting to expand this study cross culturally and compare cultures with different degrees and economic development.

It is anticipated that the growing 'going green' trend will sufficiently revolutionize the ecosystem and educate consumers to alter all consumers' everyday lifestyles globally. Individuals need to take action and extend the quality of life, protect the environment, and consider the future generations that will impinge on their offspring.

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