
CONSUMER KNOWLEDGE, ENVIRONMENTAL CONCERN AND ATTITUDE TOWARD ECO-APPAREL: AN EMPIRICAL STUDY

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Abstract

The escalating environmental effects of the clothing business have heightened the desire to determine the reaction of the customers to the sustainable fashion items. This paper identifies the role of consumer knowledge and environmental concern on perceptions of eco-apparel. The study employed a quantitative research design where a structured questionnaire was used to collect primary data in 200 apparel consumers. The results indicate that consumer knowledge plays a significant role in increasing environmental concern, as well as, the attitude towards the eco-apparel is positively affected. Environmental concern developed to be a stronger predictor of the positive attitude than knowledge alone, which shows the paramount impact of the emotional and value-based influence in sustainable consumption. The findings imply that the positive attitudes of eco-apparel purchased by the consumers can be reinforced by enhancing consumer awareness and elevating the level of ecological concern. The research is practical to the apparel marketers, policymakers, and educationalists in encouraging sustainable fashion consumption.

Keywords: Consumer Knowledge, Environmental Concern, Attitude toward Eco-Apparel, Sustainable Fashion, Green Consumer Behavior

Introduction

The apparel industry has become one of the most intensive in the world, which generates many carbon emissions, uses a lot of water, pollutes with chemicals, and generates solid waste (Niinimäki et al., 2020). The increasing condition of these negative effects has further increased scholarly as well as managerial fascination of sustainable consumption practices especially in the realm of eco-apparel. Eco-apparel is defined as the clothing items produced out of an environmentally sustainable material, ethical labor and sustainable manufacturing processes and methods that have reduced negative impacts on ecosystems (Henninger et al., 2016). Since sustainability is emerging as a strategic approach of fashion producers, it has become vital to comprehend consumer reactions to eco-clothing.

Consumers are not ready yet to adopt eco-apparel, despite the fact that this has become a prominent topic in the mainstream political discourse in the United States. The previous researches demonstrate that an attitude-behavior gap exists where the consumers may be interested in environmental sustainability, but they do not translate this interest into action by making a purchase (Joy et al., 2012). Such a gap indicates that positive environmental attitudes by itself might be not enough to make sustainable apparel consumption. This has further necessitated scholars to investigate the most

significant psychological predictors like consumer knowledge, environmental concern and attitudes that determine the adoption of eco-apparel (Kang et al., 2013).

The knowledge of consumers in being environmentally responsible is a ground work. The awareness of consumers with the knowledge of the processes used to manufacture the textile, environmental consequences of materials used, and sustainability labels can contribute to their evaluation judgment (Brosdahl and Carpenter, 2010). Nevertheless, information is not a precursor to pro-environmental behavior unless it cultivates the feelings and interest in the cause of environmental preservation. The environmental concern is part of reflecting how concerned individuals are about environmental degradation and are begin motivated towards the consideration of sustainable practices (Dunlap et al., 2000). Environmental concern can play an important role in consumer preferences to buy sustainable clothes in the combination with positive attitude towards eco-apparel.

Attitude to eco-apparel concerns a total appreciation of eco-friendly clothes, which is how useful, desirable, and valuable consumers consider it. Such positive attitudes are always associated with an increased purchase intention and readiness to spend more money on sustainable apparel (Dangelico et al., 2022). In this respect, the current research will be conducted to empirically investigate the relationships between consumer knowledge, environmental concern and attitude concerning eco-apparel with an aim of developing a more comprehensive insight on sustainable consumption behavior within the apparel industry.

Literature Review

The consumer knowledge has largely been established as an essential precondition of environmental responsible consumption. Brosdahl and Carpenter (2010) discovered that the more the consumers are aware of the effects of textiles and apparel manufacturing on the environment, the more concerned they will be and are likely to adopt eco-friendly consumption patterns. Their analysis implies that the sensitivity to sustainable options is increased when consumers are aware of the problems like water pollution, use of chemicals, and working conditions.

In the same manner, Kang et al. (2013) state that knowledge enhances the perceived consumer effectiveness the assumption that the actions of individuals can favorably influence the environment that reinforces environmentally sustainable purchase intentions. Nevertheless, the authors also note that knowledge has to be personally meaningful and relevant in order to transform into the behavior change.

Irrespective of the fact of its significance, the impact of consumer knowledge is not necessarily direct. Research recommends that the mediators in the knowledge activity can be environmental concern and perceived value (Park and Lin, 2020). This means that mere education of the consumers might not be appropriate unless these are supported by the emotional appeal and the trust on the sustainability arguments.

Dunlap et al. (2000) concluded that people who are concerned more with the environment tend to endorse policies and products that facilitate protection of the environment. Environmental concern has also been identified to affect the attitude towards sustainable fashion and purchasing intention positively in the apparel context (Gam et al., 2009).

Zhang et al. (2021) studied consumer attitudes towards sustainable fast fashion in UK and noted that the eco-friendly attitude towards apparel is strongly influenced by the environmental concern. Nevertheless, they also find out that concern does not necessarily translate to real purchase because of the barriers since prices increase and supply is also limited. This further presumes the concept of environmental concern as an essential but not a sufficient requirement to adopt sustainable apparel. Moreover, Barbarossa and De Pelsmacker (2016) have also reported that environmentally conscious consumers have varying motivation. Some of these are motivated by altruistic value whereas others are guided by self image and social identity. These dissimilarities imply that environmental concern plays around with the attitudinal and contextual elements to influence the eco-apparel consumption.

Behavioural intentions of the consumers are highly determined by their attitude toward eco-apparel. Favorable attitude is developed when the consumer believes that eco-apparel is stylish, pleasant and justifies the premium price (Henninger et al., 2016). Results of Dangelico et al. (2022) show that environment concern and purchasing intention also have a mediating variable of attitude, which plays a key role in buying sustainable fashion.

Nevertheless, some studies mention the existence of the attitude-behavior gap in the consumption of sustainable apparel. According to Joy et al. (2012), there is a tendency that symbolic meanings that come with fashion like style and social status take precedence with the environmental factors at the point of purchase. Equally, Niinimäki et al. (2020) focus on the fact that unless eco-apparel corresponds to the aesthetic expectations of the consumer and his/her lifestyle needs, positive attitudes cannot be translated into a real purchasing behavior.

In general, the literature claims that consumer knowledge, environmental concern, and attitude towards eco-apparel are interconnected in complexity. Where knowledge increases awareness, moral motivation increases as a result of environmental concern and evaluative judgment is influenced by attitude, their combined effect makes the difference as to whether or not apparel is adopted as sustainable. These lessons give the theoretical groundwork of the current empirical research.

Objectives

The current research intends on investigating the importance of the consumer knowledge and an environmental concern in determining consumer attitudes towards eco-apparel. In particular, it will aim to examine the consumer awareness of environmental effects of apparel manufacturing, to understand the degree of concern of consumers in relation to environmental effects as well as to assess the impact that these factors have on the attitudes towards eco-apparel.

Methodology

The research design of the study is a quantitative, descriptive, and analytical design based on the primary data obtained using the structured questionnaire. The target population consists of consumers who already have had experience on purchasing apparel and a sample of respondents is picked using a non-probability convenience methodology. The measurement of data involves the validation Likert items based on the existing studies of consumer knowledge, environmental concern, and sustainable apparel attitudes.

Results and Discussion

The distinguished out of 200 respondents were coded, tabulated and statistically analyzed by applying statistical results like, descriptive statistics and correlation analysis and use of multiple regression analysis. This section is aimed at the analysis of the effect of consumer knowledge and care toward nature on attitude towards the eco-apparel.

Table 1 Descriptive Analysis

Variable	Mean	Standard Deviation
Consumer Knowledge	3.68	0.71
Environmental Concern	3.92	0.65
Attitude toward Eco-Apparel	3.74	0.69

The mean of the environmental concern (3.92) is the highest among the variables which implies that consumers are highly concerned about the environmental issues. The values of consumer knowledge (3.68) and attitude toward eco-apparel (3.74) are also above average, which implies a positive orientation towards sustainable apparel in general.

Table 2 Reliability

Construct	Number of Items	Cronbach's Alpha
Consumer Knowledge	5	0.81
Environmental Concern	6	0.85
Attitude toward Eco-Apparel	5	0.83

Cronbach alpha of all constructs is more than recommended level of 0.70, which means that there is good internal consistency and reliability of the measurement scales applied in the research study.

Table 3 Correlation Analysis

Variables	Consumer Knowledge	Environmental Concern	Attitude toward Eco-Apparel
Consumer Knowledge	1		
Environmental Concern	0.48**	1	
Attitude toward Eco-Apparel	0.52**	0.61**	1

The results of the correlation show that there exists a significant and positive correlation between consumer knowledge and environmental concern ($r = 0.48$) so that the higher the consumer awareness, the more the concern towards environmental issues. Correlations between consumer knowledge ($r = 0.52$) and environmental concern ($r = 0.61$) positively and significantly correlate with attitude toward eco-apparel, and thus, the more the consumer is aware and affected, the more the consumer feels good about it.

Table 4 Multiple Regression

Independent Variable	β Coefficient	t-value	Significance (p)
Consumer Knowledge	0.31	4.72	0.000
Environmental Concern	0.45	6.98	0.000
$R^2 = 0.52$			
F-value = 107.84			0.000

The attitude towards eco-apparel is well explained with regression model $R^2 = 0.52$, which means that the nature of the explanatory power is strong. Consumer knowledge ($b = 0.31$, $p < 0.01$) and environmental concern ($b = 0.45$, $p < 0.01$) also have significant positive effects on attitude towards eco-apparel. There is an increase in the environmental concern as a predictor, indicating that the emotional involvement and the care about the environmental well-being are more dominant than only knowledge to the formation of a favorable attitude.

The empirical evidence proves that consumer knowledge helps to boost the level of environmental concern greatly and the combination of these variables has a positive impact on eco-apparel attitudes. Although knowledge gives cognitive awareness, environmental concern is an incentive that promotes positively the choice of sustainable apparel. The results indicate that informational campaigns should be used alongside emotional and value-based appeals in order to amplify consumer attitudes on eco-apparel.

Discussion

This empirically supports the existing study that formulated relationships between consumer knowledge, environmental concern, and attitude towards eco-apparel. The descriptive statistics reveal that the respondents are of a relatively high level of environmental concern, eco-apparel favourable attitudes and moderate- to -high levels of consumer knowledge. This trend is an indication that the consumers have a deeper emotional involvement with the environmental concerns but their cognitive interpretation regarding the sustainable production of apparel is still in its infancy. The same tendencies are mentioned in previous research works, where a tendency towards environmental protection outweighed the real product-specific knowledge of sustainable consumption of fashion (Niinimaki et al., 2020; Zhang et al., 2021).

The analysis of the correlation shows that the positive relation between consumer knowledge and environmental concern reached a significant level that the stronger the consumers are aware of effects of environmental impacts in apparel production, the more concerned the consumers are with the concept of environmental sustainability. This observation is consistent with Brodahl and Carpenter (2010) who found that consumers who are better informed or have more knowledge regarding the issue of textile and their effects on the environment exhibit increased environmental concern. These findings contribute to the thesis that the educational program and the open spread of information can be essential to cultivating the pro-environmental attitudes in consumers.

Additionally, consumer knowledge as well as environmental concern is also strongly positively related to attitude towards eco-apparel. This finding is aligned with the Kang et al. (2013) study which

indicated that the consumer knowledge and perceived consumer effectiveness had significant impacts on sustainable apparel attitudes and intentions. The positive relation between the environmental concern and the attitude is stronger; hence, it is indicated that affective elements are more influential than cognitive ones in making positive considerations of eco-apparel. This is in line with the earlier studies that moral obligation and emotional involvement are the most important motivators of pro-environmental attitudes (Dunlap et al., 2000).

These relationships are further confirmed through the multiple regression analysis which indicates that consumer knowledge and environmental concern are jointly related to a large proportion of the variance in attitude towards eco-apparel. The most influential predictor, which emphasizes the central role in the development of positive attitudes towards sustainable clothing, is environmental concern. This result confirms previous literature that has determined environmental concern as a prevailing factor of sustainable fashion buying intentions and readiness to spend more (Dangelico et al., 2022; Gam et al., 2009).

In spite of those positive attitudes, there is always an attitude-behavior gap recorded in the literature on sustainable apparel consumption (Joy et al., 2012). Despite the fact that, the current research is on the attitude, and not on the actual purchase behavior, the high impact of environmental concern indicates that emotional involvement can be used in the bridging of this divide where the product attributes are favorable in terms of style, quality, and cost. The results suggest that the eco-apparel promoters and policy-makers cannot rely exclusively on informational campaigns, but they should also exploit values and ethical self-identity of the consumers to encourage environmentally friendly decisions.

All in all, the discussion indicates that consumer knowledge is an underlying force, which through promotion of environmental concern, further becomes a significant driver of attitudes towards eco-apparel. These findings can be added to the development of the sustainable consumption literature as they empirically prove the interdependence of cognitive and affective factors related to sustainable fashion settings. The analysis therefore can be of great benefit to fashion companies, teachers, and policy makers who aim at facilitating the use of eco-apparel by developing a combination of both awareness-related and value-based policies.

Conclusions

The current research paper has ended the conclusion that both consumer knowledge and environmental concern is of great importance and complementary to consumer attitude to eco-apparel. The empirical data illustrates the importance of increasing consumer awareness of the environmental effects of apparel production through consumer knowledge, but environmental concern is a more influential motivating force that produces positive attitudes towards sustainable clothes. The emotional involvement and cognitive understanding are vital in promoting environmental consumption orientations brought out by the positive and strong associations between consumer knowledge, environmental concern and attitude toward eco-apparel. Besides, it can be seen that the environmental concern acts more significantly than knowledge itself, which proves the significance of value-based and ethically-focused attitudes in consumer judgement of eco-apparel. Altogether, the given research can be considered an addition to the body of literature about sustainable fashion because it empirically proves the inter-relationship between the concepts of knowledge and concern in formation of the positive attitude to the eco-friendly apparel products.

Recommendations

Resting on the results of the study, some recommendations can be offered to the marketers, policymakers, and educators. Transparent communication strategies including eco-labeling and sustainability storytelling should be invested by apparel brands in order to increase consumer knowledge and at the same time, attract consumer environmental values. The sustainability awareness program to be introduced in educational institutions and government agencies must include, in addition to information distribution, building emotional appeal and feeling of personal responsibility in relation to environmental protection. Incentives, certifications, and regulatory support should be used to promote sustainable fashion practices by the policy-makers to increase consumer confidence in environmental claims of eco-apparel. Also, marketers must consider enhancing aesthetic value, quality and affordability of eco-apparel to narrow down the already existing attitude behavior gap and provide people with the motivation to engage in the usage. This research can be further expanded in future by including purchase intention and actual buying behavior, using a longitudinal design, or the various effects of demographics and culture to better understand the trends in sustainable apparel consumption.

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