

## Sustainable Apparel: A Perspective from Bangladesh's Young Consumers

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### Abstract:

**Purpose** – This study aims to understand Bangladeshi young consumers' perceptions of sustainable apparel. Specifically, through the lens of the theory of reasoned action (TRA), this study investigates the impacts of man–nature orientation (MNO) and social influences on Bangladeshi young consumers' intention to purchase sustainable apparel.

**Design/methodology/approach** – Empirical survey-based research was conducted, and data were collected from 387 Bangladeshi college students.

**Findings** – The findings of the study show that MNO significantly influences Bangladeshi young consumers' attitudes toward purchasing sustainable apparel, which, together with social influences, impacts young Bangladeshi consumers' intention of making efforts to purchase sustainable apparel.

**Originality/value** – This study incorporates the specific cultural value– MNO with the traditional TRA model to understand young Bangladeshi consumers' sustainable apparel purchase intention. The results of this study demonstrate the applicability of the TRA framework in understanding young consumers' sustainable apparel consumer behavior in the context of Bangladesh, which is a developing country with a collectivistic culture. This study provides insights into how apparel brands and retailers should design their sustainability strategies in developing countries such as Bangladesh.

**Keywords:** apparel | sustainability | sustainable apparel | young consumers | Bangladesh

### Article:

#### Introduction

Among the manufacturing industries, the textile and apparel industry plays a major role in global economic development and is composed of a complex and extensive global supply chain ([Su](#),

2013). However, the industry is heavily challenged by sustainability worldwide (Akter et al., 2022; Siddique et al., 2020; Su et al., 2019). It generates pollutants and effluents from each manufacturing step, such as fiber production, textile material production, dyeing and washing of textile materials, apparel production and finishing (Akter et al., 2022; Hoque et al., 2022; Islam et al., 2021; Khan and Islam, 2015). With growing criticism and media exposure to environmental pollution and social issues in the apparel industry, fashion retail companies and apparel manufacturers have been taking various sustainable measures to establish eco-friendly and socially responsible apparel production (Amed et al., 2019; Byrd and Su, 2021; Su et al., 2019). As apparel companies are taking sustainable initiatives, consumers' involvement is imperative because consumers' cordial engagement in the sustainable supply chain can create a sustainable loop (Fontell and Heikkilä, 2017; Tewari et al., 2022).

Prior studies support the influence of values on consumers' attitudes and purchase intentions for sustainable apparel (Jacobs et al., 2018; Kim and Seock, 2019; Nguyen et al., 2019; Park and Lin, 2020; Su et al., 2019; Tewari et al., 2022). However, these values mostly include utilitarian, egoistic, altruistic, biospheric, materialistic and environmental values. A review of the literature suggests that previous studies have ignored values from a cultural perspective or value orientation influenced by culture. One cultural value is the man–nature orientation (MNO) developed by Kluckhohn and Strodtbeck (1961). The MNO value indicates an individual's intention to live in harmony with nature (Chan, 2001). Thus, this study contributes to the literature by specifically examining the impact of the MNO value on consumer attitudes toward purchasing sustainable apparel.

Previous research associated with attitude-behavior toward sustainable apparel in developing countries is very limited, while most of the literature has primarily focused on western countries and emerging countries (Byrd and Su, 2021; Rahman and Koszewska, 2020; Su et al., 2019; Tewari et al., 2022; Zhao et al., 2019). The degree of consumers' attitudes and purchase intentions toward sustainable products may vary due to differences in economic development and cultural values (Su et al., 2019; Tewari et al., 2022). A review of the extant literature suggests a lack of empirical studies about sustainable apparel consumer behavior from the perceptions of Bangladeshi young consumers. Therefore, given the importance of consumers' inclusion in the sustainable apparel context, this study aims to contribute to fill the research gap by conducting an empirical study to understand Bangladeshi young consumers' perceptions of and attitudes toward sustainable apparel. Specifically, the objectives of this study are as follows:

- to understand young consumers' perceptions of sustainable apparel from a developing country's perspective;
- to understand Bangladeshi young consumers' attitudes toward purchasing sustainable apparel according to their MNO beliefs; and
- to understand how social influences impact young Bangladeshi consumers' efforts to purchase sustainable apparel.

Understanding Bangladeshi young consumers' perspectives on sustainable apparel is needed for the following reasons. First, Bangladesh is one of the world's largest apparel exporters, and the apparel industry in Bangladesh is the country's major driver of economic development; thus, the Bangladeshi apparel industry has been rapidly expanding across the country during the last

decade (Akter et al., 2022; Iqbal et al., 2022). Second, Bangladesh is a developing country with a population of nearly 162.5 million in 2020 (US Census Bureau, 2021) and has a noticeable domestic apparel demand. Along with the country's increasing contribution to the global economy, its apparel industry also needs to meet rising domestic consumer demand. Bangladesh's domestic consumer market is set to become the ninth-largest in the world (Devnath, 2022). Third, Bangladesh is making remarkable progress in producing sustainable apparel, and the size of the sustainable apparel market in Bangladesh is growing (Husband, 2022). The desire to purchase eco-friendly products has grown significantly in Bangladesh over the past decade (Jahanshahi and Jia, 2018). Fourth, with globalization and technological advancement, young consumers in developing countries follow the fashion trends and lifestyles of their counterparts in developed countries (Brooks, 2019). As stated above, studies on sustainable consumer behavior and apparel sustainability have mostly focused on traditional apparel consumer markets such as the USA and EU countries and the rising consumer markets such as China and India (Amed et al., 2019; Byrd and Su, 2021; Su et al., 2019; Tewari et al., 2022). Therefore, an understanding of Bangladeshi young consumers' perceptions of and attitudes toward sustainable apparel may contribute to improving the environment and competitiveness of the apparel industry in Bangladesh.

## Literature Review

### Sustainable Apparel

As the apparel sector's supply chain structure is comparatively complex and the application of the sustainability concept is relatively new in this sector, there is a lack of a clear definition of sustainable apparel. In literature, researchers have presented sustainable apparel in the form of green apparel, ethical fashion and eco-friendly apparel. Recent sustainable apparel production trends indicate that the apparel industry has been incorporating environmentally friendly materials, such as organic fibers, recycled and upcycled fibers. Moreover, various concepts, such as transformable design (Koo et al., 2014; Rahman and Gong, 2016), ecolabeling (Bucklow et al., 2017; Byrd and Su, 2021; Koszewska, 2011), zero-waste design and production (Ramkalaon and Sayem, 2021) and recycling and upcycling (Leonas, 2017; Shim et al., 2018), have been introduced to incorporate sustainability in the textile and apparel industry. Therefore, even though there is a lack of consensus on the definition of sustainable apparel, previous literature has pointed out that the term is a combination of environmental, ethical and social impacts, where the principle of apparel production, consumption and disposal ranges from fair trade and sweatshop-free conditions to minimize negative environmental impact and to maximize social responsibility (Goworek et al., 2012; Joergens, 2006; Rahman and Koszewska, 2020).

Given the rising environmental awareness among consumers and the pressure from different stakeholders, the apparel industry has continuously adopted sustainability measures in various manufacturing stages (Akter et al., 2022; Hoque et al., 2022). The industry incorporates sustainable product design, such as focusing on materials and product longevity to lessen the environmental impact. In the production stage, apparel producers emphasize the use of environmentally friendly fibers (e.g. organic cotton), recycled fibers (e.g. recycled polyester) and certified materials (Abdul-Rashid et al., 2017; Islam et al., 2021). In wet processing, such as dyeing, washing and finishing, apparel manufacturers are implementing several new

technologies, such as laser and ozone technologies, to reduce water consumption and effluent emissions ([Islam et al., 2021](#); [Samanta et al., 2017](#)). Most importantly, apparel producers are now focusing on the life cycle assessment of the product to minimize the environmental impact ([Akter et al., 2022](#); [Islam et al., 2021](#)). In doing so, they collaborate with R&D teams, designers, material suppliers and other logistics departments to achieve the optimal sustainable product ([Islam et al., 2021](#)). Apart from the environmental aspect of sustainability, the apparel industry is gradually inclined toward socially responsible, ethical and fair trading. [Feng and Ngai's \(2020\)](#) investigation of 12 global fashion companies' corporate social responsibility reports showed that companies are giving importance to labor issues, human rights, human development and training and environmental issues.

### *Bangladesh's Consumers and Apparel Sustainability*

Bangladesh is a key manufacturing hub for apparel products, and its apparel manufacturing sector is the most significant contributor to the nation's economy, and this industry is now the world's second-largest apparel exporter after China ([Iqbal et al., 2022](#); [Su et al., 2022](#); [WTO, 2020](#)). However, due to the substantial growth of the apparel industry in Bangladesh during the last decade, the industry has been a major cause of environmental pollution and social issues such as labor and working conditions in the country ([Akter et al., 2022](#); [Hoque et al., 2022](#)). After the Rana Plaza incident in April 2013 in Bangladesh, where more than 1,100 apparel workers were killed due to a building collapse, and the Tazreen Fashions fire tragedy in November 2012 that took 112 lives of apparel workers, the Bangladeshi apparel industry was heavily criticized in terms of ensuring the safety of the workers and meeting other sustainability-related goals demanded by fashion buyers. As the public attention and consumers have pushed the apparel industry to adopt sustainable measures ([Byrd and Su, 2021](#); [Islam et al., 2021](#)), Bangladeshi apparel professionals' skills related to environmental issues are considered increasingly important ([Iqbal et al., 2022](#)). With the consistently growing pressure from stakeholders, Bangladeshi apparel companies have been gradually involved in various aspects of environmental and social responsibilities ([Akter et al., 2022](#); [Hoque et al., 2022](#)). Bangladesh's apparel brands have been signaling environmentally friendly apparel products in their marketing campaigns to gain a competitive advantage ([Husband, 2022](#)).

Bangladesh had a population of 162.5 million in 2020 ([US Census Bureau, 2021](#)), which makes it a massive domestic apparel market. The nation's GDP per capita was US\$1,968.8 in 2020 ([World Bank, 2020](#)), which indicates that the nation's majority of the population heavily depends on its domestic apparel industry and market. Due to its robust economic growth, Bangladesh is seen as an emerging country where the economy is booming ([Devnath, 2022](#)). According to Boston Consulting Group, a rapidly expanding middle and affluent class is projected to rise substantially in Bangladesh between 2020 and 2025 ([Devnath, 2022](#)). Due to its rising economy and citizens' purchasing power, Bangladesh's apparel industry and domestic apparel market are remarkably expanding with the growing domestic clothing demand ([Husband, 2022](#); [Jahanshahi and Jia, 2018](#)).

An increasing number of Bangladeshi consumers are aware of the various sustainability issues in the apparel industry and are interested in sustainable products ([Husband, 2022](#); [Jahanshahi and Jia, 2018](#)). The negative environmental impact of Bangladesh's massive garment industry and its

increasing economic activities across the country, including air and water pollution, severe climate change, unplanned extraction and use of natural resources and significant biodiversity loss, have placed this nation's consumers to engage in sustainable consumption (Jahanshahi and Jia, 2018; Siddique et al., 2020).

### *Young Consumers in Bangladesh*

Young consumers differ from other generations in terms of their consumption habits (Su et al., 2019). They were born as the internet became widespread and grew up in an era when the world was interconnected and interdependent. They are constantly exposed to information associated with environmental and social issues that make them more receptive to sustainability and sustainable lifestyles (Kumar et al., 2021; Su et al., 2019; Tewari et al., 2022). Furthermore, they are proactive and want to engage in sustainable programs to bring positive environmental and social changes (Amed et al., 2022; Tewari et al., 2022). Young consumers are also characterized as educated, technologically savvy, individualistic and less gullible than their preceding generations (Ladhari et al., 2019). In addition, they are more confident and self-dependent than their prior cohorts, and thus, they may want to establish themselves as green consumers, which leads them to purchase eco-friendly and socially responsible products (Kumar et al., 2021; Nguyen and Nguyen, 2020; Su et al., 2019; Tewari et al., 2022).

From Bangladesh's perspective, young consumers are considered the goldmine of the market as they occupy a substantial portion of Bangladesh's total population (Chowdhury, 2018; Sobuj et al., 2021). Bangladeshi young consumers aged 18–37 years old in 2020 (millennials) constitute approximately 34% of the total Bangladeshi population (US Census Bureau, 2021). More than one-quarter of Bangladeshi millennials live in urban areas of Bangladesh (Nikhat, 2016). Even though Bangladesh's economy falls within the developing country's category, due to its rising economy driven by consumer optimism and innovation in emerging economic sectors, Bangladesh is considered an emerging country with a massive young engaged workforce (Devnath, 2022). Thus, young consumers in this country enjoy greater purchasing power than those in the earlier period (Sobuj et al., 2021). Similar to other millennials around the world, Bangladesh's young consumers are also highly tech-savvy (Devnath, 2022). As mobile phone penetration has enjoyed impressive growth in Bangladesh (Aas, 2022), Bangladeshi young generation are aware of the environmental and social sustainability issues through the internet and various social media platforms.

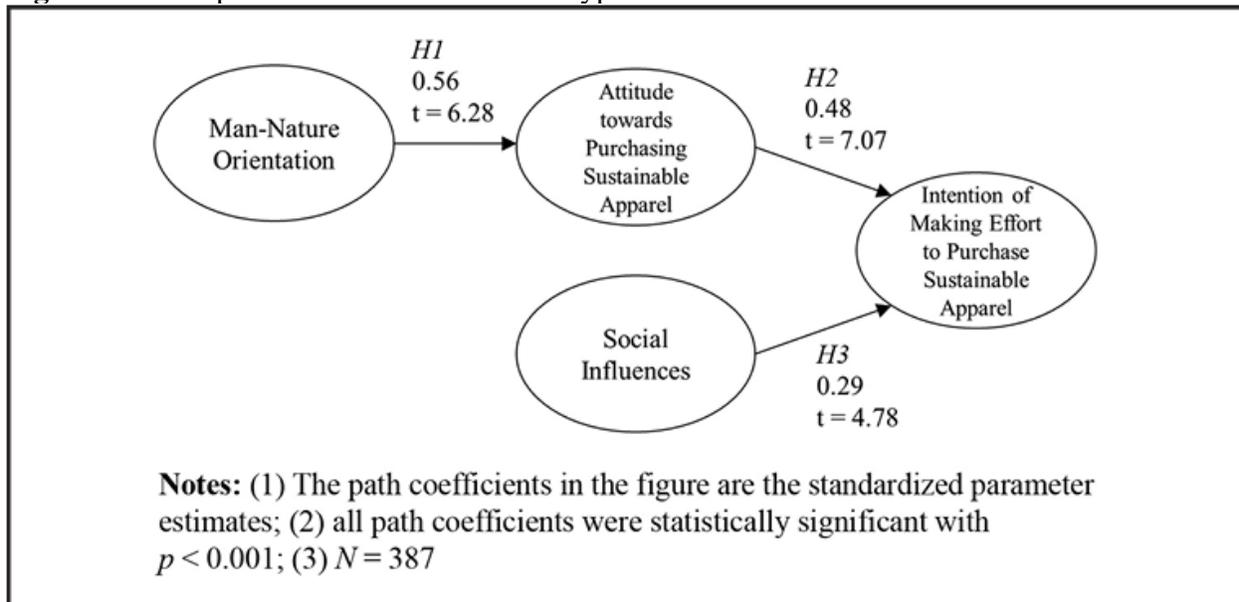
### *Development of Hypothesis*

*Theory of reasoned action.* The theory of reasoned action (TRA) (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), which was first introduced in 1967 by Fishbein (1967), was used to explain the relationships between young Bangladeshi consumers' beliefs, attitudes and intentions toward sustainable apparel consumption. The TRA posits that two unique factors, attitude toward behavior and subjective norm, contribute to behavioral intention. Behavior intention is an indication of an individual's readiness to perform the behavior and is the most important predictor of a consumer's actual behavior (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975). To achieve a deeper understanding of the factors impacting certain behaviors, it is necessary to examine the beliefs individuals have about themselves, attitude objects and their

environment. An individual's beliefs can be viewed as underlying his/her attitude and perceived norm. Attitude represents an individual's positive or negative feelings about performing the target behavior, that is, whether the individual is in favor of performing the target behavior. Subjective norms refer to a person's perception of social pressure to engage in behavior. TRA has demonstrated benefits in understanding sustainable consumer behavior (Copeland and Zhao, 2020; Diddi and Niehm, 2017; Oh and Yoon, 2014). Through the lens of TRA, this study investigates the impact of MNO on young consumers' attitudes toward purchasing sustainable apparel, which, together with social influences, impacts consumer intention to make efforts to purchase sustainable apparel. Figure 1 illustrates the conceptual model and the three research hypotheses. The following sections elaborate on the development of the research hypotheses.

*Impact of man-nature orientation on consumer attitude toward purchasing sustainable apparel.* Values serve as guiding principles for an individual's attitude formation (Rokeach, 1973). Over the past decades, many social theorists have discussed several cultural values (Hofstede, 1980, 2011; Kluckhohn and Strodtbeck, 1961; Rokeach, 1973). Kluckhohn and Strodtbeck (1961) proposed a cultural value framework that includes five value orientations: human nature, the relationship of humankind to nature, social relationships, sense of time and activity. The relationship between human beings and the natural environment is defined as MNO (Chan, 2001; Chan and Lau, 2000). MNO can be defined as an individual's friendly interaction with the environment, motivated by their love of nature and the intention to protect nature (Chekima et al., 2016). According to the MNO value, as nature is unalterable, individuals should behave according to nature to maintain human-nature harmony (Chan, 2001; Chan and Lau, 2000). Individuals with a high MNO level reflect high ecological concerns (do Paço et al., 2013), leading to green purchase intention (Chan and Lau, 2000).

**Figure 1.** Conceptual Model and Research Hypothesis



Chan (2001) examined Chinese consumers' cultural and cognitive factors behind their green purchase behavior and concluded that consumers' level of the MNO value impacts their attitude toward green purchases. Similarly, Sreen et al. (2018) empirically showed a significant positive

relationship between MNO and Indian consumers' attitudes toward green purchase intention. Ko and Jin (2017) empirically studied the influence of MNO on consumers' attitudes toward buying green apparel and found a positive MNO and attitude relationship in the US, an individualistic culture. The MNO value is traditionally influential in a collectivistic society (Chan, 2001; Ko and Jin, 2017). Therefore, it can be assumed that the MNO value of young consumers in Bangladesh within a collectivistic social structure will positively impact their attitude toward purchasing sustainable apparel:

*H1. MNO is positively related to consumer attitude toward purchasing sustainable apparel.*

*Impact of social influences on intention of making effort to purchase sustainable apparel.* The TRA postulates that individuals' behavioral intentions (e.g. purchase intention) result from their attitude or evaluation of a particular behavior (Fishbein and Ajzen, 1975). According to Fishbein and Ajzen (1975), attitude is defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p. 211). Previous studies have empirically shown the relationship between attitude and purchase intention (Chi et al., 2021; Han and Stoel, 2016; Jaiswal and Kant, 2018; Lang and Wei, 2019; Oh and Yoon, 2014; Rausch and Kopplin, 2021; Sreen et al., 2018; Su et al., 2019; Tewari et al., 2022). These previous studies have explained how individuals' attitudes based on their values and beliefs can influence their purchase intention of environmentally, socially responsible and ethical apparel products. For example, Lang and Wei (2019) studied consumers' purchase intention of transformable apparel, an alternative sustainable fashion and showed that consumers grow a strong attitude based on their environmental concern, and such positive attitudes lead to purchase intention of transformable apparel. Han and Stoel (2016) examined the purchasing behavior of Generation Y consumers. Their study results showed that Generation Y consumers' positive attitude toward organic cotton apparel and fair-trade apparel has a significant and positive influence on their purchase intention. Chi et al. (2021) reported that consumers' attitudes influence their intentions to purchase slow fashion apparel. Slow fashion, which is a sustainable consumption movement, focuses on practices where consumers would reduce the quantity and speed of consumption and buy high-quality goods that are produced sustainably and designed for longevity (Chi et al., 2021). Jaiswal and Kant (2018) suggested that consumers' attitudes toward green products have the highest predictability of green purchase intention compared to other factors such as environmental concern and consumer effectiveness. They further indicated that, in an emerging economy, a more favorable attitude toward green products is likely to lead to higher purchase intention for such products. Thus, the following hypothesis is proposed:

*H2. Consumers' attitudes toward purchasing sustainable apparel are positively related to their intention to make efforts to purchase sustainable apparel.*

*Impact of social influences on intention of making effort to purchase sustainable apparel.* Fishbein and Ajzen's (1975) TRA theory depicts subjective norms' predictive aspects, that is, how individuals' behavioral intention (e.g. purchase intention) is influenced by their family, peers and society's expectations. Several studies have reported a significant relationship between perceived norms and consumers' sustainable consumption behavioral intention (Cowan and Kinley, 2014; Kang et al., 2013; Kumar et al., 2021; Nam et al., 2017; Tewari et al.,

2022; Zheng and Chi, 2014). As a result of subjective norms, social pressure can be exerted on individuals to purchase sustainable products. When individuals find that their relevant groups, such as family members, peers and other influential people buy sustainable apparel, they sense a higher social pressure and they want to comply with such pressure, which, in turn, influences their intention to buy such products (Tewari *et al.*, 2022; Zheng and Chi, 2014). A similar finding was reported in Nam *et al.*'s (2017) study, where one of the motivators of consumers' green sportswear purchase intention is to comply with such social pressure. Along with family members and peers, individuals' sustainable consumption may be influenced by social media (Zhao *et al.*, 2019) and celebrities (Shrivastava *et al.*, 2021). Nowadays, individuals' way of life is changed because of various social media platforms where social media offers several functions such as socialization, buying, connection with retailers and brands and opportunities to follow celebrities more frequently. As a result, consumers are more likely to be influenced by social media content and celebrities regarding sustainable consumption. Zhao *et al.* (2019) reported that Chinese consumers' growing sustainable apparel purchase intention is tied to their social media engagement. Similarly, another study found that consumers' behavioral intention toward online second-hand clothes renting is influenced by Instagram celebrities (Shrivastava *et al.*, 2021). Previous studies have shown that social influences are more likely to lead to purchase intention for a sustainable product in a collectivistic culture (Han and Chung, 2014), which is a social structure in many developing countries and among young consumers (Coleman *et al.*, 2011). Group cohesiveness is a significant attribute of a collectivist society, and individuals try to comply with their relevant group norms to fit into their groups (Han and Chung, 2014). For example, Han and Chung (2014) showed that social pressure positively and significantly influences Korean consumers' purchase intention for organic cotton apparel. The authors suggested that Korean consumers might adhere to others' opinions due to their collectivistic attributes. Furthermore, studies reveal that older adults are less concerned about social pressure, whereas younger people are easily influenced by others' opinions and expectations regarding green consumption (Coleman *et al.*, 2011). This study focuses on young consumers from Bangladesh, which is a collectivist society and a developing country. Bangladeshi consumers are young, as over 50% of its population is under 30 years old in 2020 (US Census Bureau, 2021). Hence, it can be hypothesized that:

*H3. Social influences are positively related to consumers' intention to make an effort to purchase sustainable apparel.*

## **Research Method**

A structured questionnaire in English was developed based on a careful review of pertinent literature and the Qualtrics survey software was used to develop the online survey for collecting data from Bangladesh's young consumers. At the beginning of the questionnaire, a description of sustainable apparel (also called environmentally and socially responsible apparel) and examples of sustainable apparel products were provided to ensure that survey respondents understood the concept of sustainable apparel and sustainable apparel products. Measures for MNO, social influences and intention to make an effort to purchase sustainable apparel were adapted from Chan (2001), Diddi and Niehm (2017) and Sweeney *et al.* (1999), respectively, on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Three items measuring consumer

attitude were adapted from Chan (2001) on a five-point semantic differential scale. Table 1 includes the measures of the constructs in the conceptual model.

After receiving Institutional Review Board approval, the online survey was distributed to a convenience sample of Bangladeshi college students. Three of the authors are Bangladeshi and have their own academic networks with various Bangladeshi universities. With the help of Bangladeshi professors, the Qualtrics online survey link was sent to college students through their emails in 12 Bangladeshi universities. In addition, different social media platforms were also used to reach college students. Using a sample of college students in the study is appropriate because Bangladeshi college students represent emerging powerful young consumers who should be capable of making a difference in the next few decades in terms of purchasing power (Devnath, 2022). As the economy of this country has been rapidly growing, the substantial number of young consumers with potential purchasing power will have an impact on developing sustainable consumption trends. A sample of college students is relatively homogeneous in terms of socio-demographic variables, ruling out possible interference from variables such as age, income or social class (Peterson, 2001). Moreover, college students are more conscious about sustainability issues in the apparel industry (Su et al., 2019).

Descriptive data analysis was conducted first to show the profile of the sample respondents using SPSS. Then, hypothesis testing followed the two-step structural equation modeling approach and used LISREL 9.1:

1. a confirmatory factor analysis was conducted to evaluate the measurement model to ensure adequate model fit and satisfactory reliability and validity; and
2. structural equation modeling was used to examine the structural model and test the hypotheses.

The following section reports the data analysis results.

**Table 1.** Evaluation of the Measurement Model

Indicator variables and their underlying factors	Standardized factor loading	<i>t</i> -value	Composite Reliability	AVE
<i>Man–nature orientation (Cronbach’s alpha = 0.68)</i>				
V1 – Human beings need to understand the ways of nature and act accordingly	0.75	11.59	0.68	0.51
V2 – We should maintain harmony with nature	0.68	10.86		
<i>Attitude toward sustainable apparel (Cronbach’s alpha = 0.71)</i>				
V3 – I have a(n) _____ attitude toward purchasing environmentally friendly and/or socially responsible clothing. (negative-positive)	0.72	13.81	0.72	0.46
V4 – I think purchasing environmentally and/or socially responsible clothing is a(n) _____ experience. (negative-positive)	0.76	14.49		
V5 – Purchasing environmentally and/or socially responsible clothing is a (n) _____ idea. (bad-good)	0.54	10.05		
<i>Social influences (Cronbach’s alpha = 0.82)</i>				
V6 – Influence from my friends	0.72	15.03	0.82	0.53
V7 – Influence from my family members	0.71	14.56		
V8 – Influence from social media	0.72	15.02		
V9 – Influence from celebrities	0.77	16.16		
<i>Intention of making effort to purchase sustainable apparel (Cronbach’s alpha = 0.69)</i>				
V10 – I will make an extra effort to purchase clothing from environmentally and/or socially responsible clothing brands	0.86	12.49	0.71	0.56
V11 – I will pay more for clothing from environmentally and/or socially responsible clothing brands	0.61	10.09		
Fit indices		Value		
Chi-square/degree of freedom		2.78		
Root mean squared error of approximation (RMSEA)		0.07		
Normed fit index (NFI)		0.92		
Non-normed fit index (NNFI)		0.92		
Comparative fit index (CFI)		0.94		
Goodness of fit index (GFI)		0.95		

**Notes:** AVE: average variance extracted; all *t*-values are statistically significant at  $p < 0.001$ ; valid  $N = 387$ .

## Results

### *Sample Characteristics*

A total of 1,049 responses were obtained. After data screening, 387 valid responses were used for the study, with 73% of male participants and 24% of female participants. About 53% of the participants were 21–23 years old, 27% were 24–26 years and 9% were 18–20 years. About 69% were undergraduate students, and 28% were graduate students. The majority of the respondents (66%) reported that their total household income before taxes in 2019 was less than BDT 250,000 ( $\approx$ US\$3,000), whereas 18% between BDT 250,000 ( $\approx$ US\$3,000) and BDT 500,000 ( $\approx$ US\$6,000). [Table 2](#) shows the demographic information of the respondents.

Table 3 shows the comparative analysis results between the two income groups – “annual income less than 250,000 BDT” and “annual income 250,000 BDT or higher” regarding each variable. A series of independent samples *t*-tests were conducted between the two income groups, and no significant difference was found between the two income groups. Table 4 shows the comparative analysis results between the two academic status groups – “freshmen, sophomore, and juniors” and “seniors and graduate students”. A series of independent samples *t*-tests were conducted between the two academic status groups, and no significant difference was found between the two academic status groups.

### *The Measurement Model*

Confirmatory factor analysis was conducted to evaluate the measurement model and examine the relationships between the indicator variables and their respective underlying factors. Multiple fit indices were used to examine the model fit: Chi-square/degree of freedom ( $\chi^2/df$ ), root mean squared error of approximation (RMSEA), goodness of fit index (GFI), normed fit index (NFI), non-normed fit index (NNFI) and comparative fit index (CFI). The fit indexes included in Table 1 demonstrate that an acceptable fit was achieved for the measurement model:  $\chi^2/df = 2.78$ , RMSEA = 0.068, GFI = 0.95, NFI = 0.92, NNFI = 0.92 and CFI = 0.94. Table 1 also includes the standardized factor loadings, *t*-values, composite reliability and average variance extracted (AVE), which were used to assess the reliability and convergent validity. For all the path parameter estimates in the measurement model, the *t*-values are greater than 2.58; therefore, all the path parameter estimates are statistically significant with  $p < 0.01$ . As shown in Table 1, the AVEs are acceptable; the composite reliability coefficients range from 0.68 to 0.82 and are above 0.60, which is the acceptable guideline suggested by Devellis (2003), indicating the support for construct reliability.

The analysis of discriminant validity was based on comparing each construct’s AVE value with the squared interconstruct correlations of that construct with all other constructs in the structural model (Fornell and Larcker, 1981). The confidence interval test (the correlations between two latent constructs plus or minus two standard errors) was also used to assess discriminant validity. The AVEs were greater than the squared inter-construct correlations, and the confidence interval test did not include one, thus, demonstrating satisfactory discriminant validity (Table 5). The evaluation of the measurement model indicated that measurement model was adequate for testing the proposed structural model.

### *The Structural Model*

The results of the structural equation modeling are shown in Figure 1. The structural equation model supports the relationships stated in *H1* (MNO – attitude toward purchasing sustainable apparel, standardized path coefficient = 0.56,  $t = 6.28$ ,  $p < 0.001$ ), *H2* (attitude toward purchasing sustainable apparel – intention of making an effort to purchase, standardized path coefficient = 0.48,  $t = 7.07$ ,  $p < 0.001$ ) and *H3* (social influences – intention of making an effort to purchase, standardized path coefficient = 0.29,  $t = 4.78$ ,  $p < 0.001$ ), demonstrating that consumers’ MNO impacts their attitude toward purchasing sustainable apparel; and their attitude and social influences together positively and strongly affect Bangladeshi young consumers’ intention to make efforts to purchase sustainable apparel.

**Table 2.** Profile of the Survey Respondents

<i>Demographic Information</i>	<i>n</i>	Sample <i>%</i>
<i>Gender</i>		
Male	281	72.6
Female	94	24.3
Prefer not to answer	2	0.5
Missing	10	2.6
<i>Age</i>		
18 – 20	34	8.8
21 – 23	206	53.2
24 – 26	106	27.4
27 – 29	17	4.4
30 and above	14	3.6
Missing	10	2.6
<i>Academic status</i>		
First-year college student	34	8.8
Second-year college student	78	20.2
Third-year college student	62	16.0
Fourth-year college student	93	24.0
Master’s program graduate student	107	27.6
Doctoral student	3	0.8
Missing	10	2.6
<i>Total household income before taxes in 2019</i>		
Less than 250,000 BDT (less than US\$3,000)	254	65.6
BDT 250,000 – 500,000 (US\$3,000 – 6,000)	70	18.1
BDT 500,001 – 750,000 (US\$6,000 – 9,000)	24	6.2
BDT 750,001 – 1,000,000 (US\$9,000 – 12,000)	14	3.6
BDT 1,000,001 – 1,250,000 (US\$12,000 – 15,000)	5	1.3
BDT 1,250,001 – 1,500,000 (US\$15,000 – 18,000)	3	0.8
Over BDT 1,500,000 (over US\$18,000)	7	1.8
Missing	10	2.6
<i>Purchase Experience</i>		
Have you ever purchased environmentally and/or socially responsible product(s) during the last five years?		
Yes	196	50.7
Not sure	163	42.1
No	28	7.2

**Notes:** *N* = 387; Bangladesh currency; at the time of the survey (May 2020), 1 BDT = 0.012 US\$

## Discussion and Implications

The purpose of this study is to understand young consumers’ perceptions of sustainable apparel from a developing country’s perspective (Bangladesh); specifically, how MNO and social influences affect young Bangladeshi consumers’ intention to purchase sustainable apparel. The first finding of this study shows that the cultural value – MNO significantly influences Bangladeshi young consumers’ attitudes toward purchasing sustainable apparel, consistent with the findings of Chan (2001) (Chinese consumers) and Sreen *et al.* (2018) (Indian consumers). Previous studies have shown that MNO influences individuals’ attitudes toward purchasing

**Table 3.** Mean Difference Between the Two Incoming Groups

Items	Annual income less than 250,000 BDT (Valid = 254)		Annual income 250,000 BDT or higher (Valid n = 123)		t-value
	Mean	SD	Mean	SD	
Human beings need to understand the ways of nature and act accordingly	4.62	0.71	4.69	0.73	-0.88
We should maintain harmony with nature	4.63	0.74	4.76	0.54	-1.80
I have a(n) ___ attitude toward purchasing environmentally and/or socially responsible clothing. (negative-positive)	4.48	0.74	4.44	0.67	0.47
I think purchasing environmentally and/or socially responsible clothing is an ___ experience. (negative positive)	4.30	0.79	4.41	0.66	-1.44
Purchasing environmentally and/or socially responsible clothing is a(n) ___ idea. (bad-good)	4.65	0.74	4.73	0.53	-1.15
Influence from my friends	3.46	1.37	3.27	1.27	1.28
Influence from my family members	3.51	1.31	3.40	1.26	0.80
Influence from social media	3.68	1.23	3.58	1.29	0.73
Influence from celebrities	3.25	1.39	3.19	1.40	0.43
I will make an extra effort to purchase clothing from environmentally and/or socially responsible clothing brands	4.11	0.91	3.99	0.96	1.20
I will pay more for clothing from environmentally and/or socially responsible clothing brands	3.76	1.11	3.59	1.10	1.47

**Note:** No significant differences between the two income groups

**Table 4.** Mean difference between the two academic status groups

Items	Freshman, Sophomores, and Juniors (Valid n = 174)		Seniors and Graduate Students (Valid n = 203)		t-value
	Mean	SD	Mean	SD	
Human beings need to understand the ways of nature and act accordingly	4.64	0.70	4.65	0.73	-0.02
We should maintain harmony with nature	4.64	0.71	4.70	0.66	-0.79
I have a(n) ___ attitude toward purchasing environmentally and/or socially responsible clothing. (negative-positive)	4.45	0.67	4.47	0.76	-0.25
I think purchasing environmentally and/or socially responsible clothing is an ___ experience. (negative positive)	4.32	0.80	4.35	0.72	-0.43
Purchasing environmentally and/or socially responsible clothing is a(n) ___ idea. (bad-good)	4.67	0.67	4.67	0.69	-0.04
Influence from my friends	3.34	1.36	3.44	1.32	-0.68
Influence from my family members	3.36	1.29	3.58	1.29	-1.65
Influence from social media	3.52	1.29	3.75	1.21	-1.84
Influence from celebrities	3.14	1.42	3.31	1.36	-1.20
I will make an extra effort to purchase clothing from environmentally and/or socially responsible clothing brands	4.01	0.92	4.13	0.93	-1.33
I will pay more for clothing from environmentally and/or socially responsible clothing brands	3.72	1.13	3.69	1.09	0.30

**Note:** No significant differences between the two academic status groups

green products, which are goods that provide social, economic and environmental benefits throughout their whole life cycle (Chan, 2001; Chan and Lau, 2000). The results of this study demonstrate that young Bangladeshi consumers with high MNO are more likely to show a positive attitude toward purchasing sustainable apparel. It is possible that young individuals with strong MNO have more concerns about ecological issues (Mostafa, 2007), which leads to a more positive attitude toward purchasing sustainable apparel products (Chekima et al., 2016). Societies with low MNO perceive that they have power over nature. Societies with high MNO believe in harmony with nature, and thus, tend to show a positive attitude toward purchasing green products (Sreen et al., 2018). With a strong MNO, young consumers may feel that they are a part of nature that needs to be protected, and therefore, they may show a strong desire to purchase sustainable apparel products (Byrd and Su, 2021). This finding provides a valuable practical implication to apparel business practitioners as it sheds light on the importance of the cultural value, MNO, in designing fashion brand's sustainability communication with young consumers. The values reflected by the image of a sustainable apparel brand should be meaningful to its target consumers and match the target consumers' values well. As values affect the way people interpret information and people are likely to act in ways that promote attaining their important values (Su et al., 2019), sustainable fashion marketers should target young consumers with high MNO values. When promoting sustainable apparel to Bangladeshi young consumers, apparel marketers and fashion brand managers could show their efforts in creating harmony between their business practices and the nature environment. Therefore, sustainable apparel marketers should focus on highlighting nature preservation while promoting sustainable apparel in collectivistic societies.

**Table 5.** Assessing Measurement Model Discriminant Validity

<i>Constructs</i>	<i>Man-nature orientation</i>	<i>Attitude toward sustainable apparel</i>	<i>Social influence</i>	<i>Intention of making effort purchase sustainable apparel</i>
Man-nature orientation	<b>0.51</b>	0.15	0.29	0.28
Attitude toward sustainable apparel	0.31	<b>0.46</b>	0.29	0.30
Social influences	0.01	0.01	<b>0.53</b>	0.85
Intention of making effort to Purchase sustainable apparel	0.07	0.25	0.10	<b>0.56</b>

**Notes:** The results (bold) on the diagonal are the AVEs. The results below the diagonal are squared inter-factor correlation estimates; The results above the diagonal represent the upper bounds of the 95% confidence for the inter-factor correlations

This study incorporates TRA to explain young Bangladeshi consumers' attitudes and intentions to make an effort to purchase sustainable apparel. The study's findings indicate a positive and significant association between Bangladeshi young consumers' attitudes toward purchasing sustainable clothing and their intention to make efforts to purchase sustainable clothing. This finding is consistent with those of previous studies (Chi et al., 2021; Jaiswal and Kant, 2018; Rausch and Kopplin, 2021; Su et al., 2019). The implication of this finding suggests that more positive attitudes toward sustainable apparel would lead to more purchase intention efforts in an emerging or developing economy similar to Bangladesh. For instance, developing countries, including China, India and Vietnam have been experiencing rapid economic growth where it is necessary to incorporate such a theoretical foundation to attract more young consumers toward sustainable apparel. Apparel brands and retailers may focus on shifting young consumers' attitudes toward creating a highly positive purchase intention.

Another objective of this study is to understand how social influences impact young Bangladeshi consumers' intentions to make efforts to purchase sustainable apparel. The analysis results reveal that social entities such as family members, peers, social media and celebrities influence young Bangladeshi consumers in making an effort to purchase sustainable apparel. This finding is consistent with the previous literature, in which consumers' subjective norms influence their purchase intention for green products (Nam *et al.*, 2017; Sobuj *et al.*, 2021; Tewari *et al.*, 2022; Zhao *et al.*, 2014; Zheng and Chi, 2014). The finding implies that social pressure and willingness to comply with such pressure positively influence young Bangladeshi consumers' purchase intention toward sustainable apparel. Several reasons may contribute to young Bangladeshi consumers' social pressure. One reason is their collectivistic social structure in which people try to comply with family and peers' expectations to fit into their relevant social groups. Apart from the social structure, consumer's age also plays an essential role in making a potential effort to purchase sustainable apparel. According to Solomon (1983), people are constantly engaged in building their identities, and the symbolic qualities of products are often the primary reasons for their purchases. Young consumers are more concerned about what others think and expect from them, and fitting in by having the right brands or products is a leading motive driving their consumption preference (Solomon, 1983). As sustainability is now receiving increasing attention from public, Bangladeshi young consumers may feel more social pressure to buy sustainable apparel (Sobuj *et al.*, 2021). Furthermore, a significant number of young Bangladeshi consumers are social media users, so they tend to be influenced by celebrities and social media content, which may lead them to purchase sustainable apparel products. For example, a study conducted in India, a similar social structure to that of Bangladesh, showed that Instagram celebrities influence Indian consumers' behavioral intention toward online second-hand clothes renting (Shrivastava *et al.*, 2021).

In summary, in terms of the theoretical implications, this study is one of the very first studies that incorporate the specific cultural value – MNO with the traditional TRA model to understand young Bangladeshi consumers' sustainable apparel purchase intention. The results of this study demonstrate the applicability of the TRA framework in this study's context. With the inclusion of the specific cultural value, MNO, this study provides practical insights into how apparel brands and retailers should design their sustainability strategies in emerging and developing countries such as Bangladesh. Young Bangladeshi consumers' belief in living in harmony with nature positively affects their attitude toward sustainable apparel products. Furthermore, the study supports the critical role of social influences in developing consumers' sustainable apparel purchase efforts. Apparel brands and retailers should develop business strategies and marketing campaigns to nurture Bangladeshi young consumers' favorable attitudes toward sustainable apparel by focusing on their commitment to preserving nature and improving the environment. Bangladesh reflects a collectivistic culture; hence, apparel and retail marketers who intend to promote sustainable apparel in developing countries with a collectivistic culture should prioritize the function of social influences.

## **Limitations**

This study has several limitations. First, this study focuses on young Bangladeshi consumers' perspectives on sustainable apparel. Future studies should explore the model of this study in a

wider setting in terms of age group. Second, this study surveyed a sample of Bangladeshi college students. This approach did not encompass the perspectives of young consumers in Bangladesh who did not attend college education. Further studies should explore and compare the perspectives of young consumers at different education levels. Third, the respondents of this study were from 12 universities in Bangladesh, where most of the universities surveyed were located in urban areas. The results may not be representative of young consumers living in rural areas. Future studies can compare the perspectives and attitudes of urban and rural consumers. Fourth, this study focused only on young Bangladeshi consumers as a representative of developing countries. Future cross-cultural studies may provide more insights into the perceptions of young consumers toward sustainable apparel. Fifth, the age distribution of the survey respondents in this study is aligned with college students and mostly ranges from 18 to 26, which may not be the complete representation of young consumers of Bangladesh. Future studies can consider young consumers with a wider range of ages. Sixth, the medium of higher education in universities of Bangladesh is English, and it was expected that the respondents comprehended the language of the survey. But the authors cannot deny the potential selection bias where the survey might unintentionally exclude participants who had difficulty fully understanding the survey questions. Finally, this study used a quantitative survey approach to address the research objectives. Future studies may use a mixed-method approach to dig deeper into the subject matter.

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