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Article

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MARKETING | RESEARCH ARTICLE

Understanding purchase intention towards eco-friendly clothing for generation Y & Z

Muhammad Abrar¹, Muhammad Muzummil Sibtain¹ and Rizwan Shabbir^{1*}

Abstract: Green consumption and pro-environmental behaviour have attracted considerable attention from academic marketing scholars. From the South Asian perspective, investigation on environmental awareness, social recognition, and self-image building through green consumption is very limited, particularly for young generations. Therefore, this study seeks to comprehend the motives of consumers that belong to generations Y & Z towards green apparel purchases. The theoretical base integrates the (TBP) Theory of Planned Behaviour with three additional constructs of Environmental Apparel knowledge (EAK), Social Status (SS), Green self-concept (GSC). An online survey of 347 consumers belonging to generation Y & Z was conducted. For determining measurement and structural models, Structural Equation Modelling (SEM-PLS) was employed. The results indicated that Environmental Apparel Knowledge (EAK) and Green Self-concept (GSC) positively impact attitude towards green apparel, subjective norms (SN), perceived behavioural control (PBC), and purchase intention towards green apparel. In contrast, Social Status (SS) only impacts subjective norms. Moreover, mediation analysis showed that attitude mediated all relationships between Environmental Apparel knowledge (EAK), Social Status (SS), Green self-concept (GSC), and purchase intention towards green apparel. However, perceived behavioural control only mediated Green self-concept (GSC) and purchase intention, while subjective norm did not mediate any relationship. The study contributes to the existing literature by examining young green consumers' specific personal and social values. It highlighted the

ABOUT THE AUTHOR

The authors share close ties and collaboration under the umbrella of Lyallpur Business School, GC University, Faisalabad, Pakistan, in marketing research, especially in the subcategory of Services Marketing, Market Segmentation, Sustainability, and Supply Chain Management. The group is engaged in numerous research avenues and Government-funded projects. Muhammad Abrar and Muhammad Muzummil Sibtain conceptualized the research framework, while Rizwan Shabbir performed data analysis, reported results with conclusions, and prepared the manuscript. This article will help government institutions and marketing firms to devise proper educational programs for the green movement and guide managers to design marketing strategies.

PUBLIC INTEREST STATEMENT

Climate change has now become a global issue. Earth's natural resources are endangered through careless dumping of industrial waste resulting in contamination of water and landfill. The textile industry contributes to waste production. Every year millions of tons of textile discarded products are making their way to the oceans and soil. Human lifestyle, fast fashion desire, and unawareness of adverse effects of the clothing industry on the environment are stirring this problem. There is an urgent need for behaviour adjustment towards the environment on the part of consumers. Therefore, the current research article endeavors to identify the underlying key motivation factors of knowledge, social belonging, and self-concept for green behaviour and their influence in predicting an individual intention towards green apparel products.

role of knowledge about environmental concerns in designing purchase intention strategies for emerging countries. Practical implications for marketers and policy-makers were presented.

Subjects: Marketing; Marketing Research; Marketing Management; Relationship Marketing; Retail Marketing

Keywords: Environmental apparel knowledge; eco-friendly clothing; green self-concept; social status; Theory of Planned Behaviour (TPB); generation Y & Z

1. Introduction

The consumption of products and services has transformed the human lifestyle due to global population growth and the industrial revolution. Overconsumption has caused a significant reduction in the world's natural resources, minimizing natural environment restoration and negatively influencing the ecosystem (Hubacek et al., 2007). A study by GFN (2019) has revealed a very alarming situation by stating that the world has been facing a bio-capacity deficit since the 1970s that our resources consumption rate has exceeded the world's renewal rate of resources. Right now, 1.7 planets are required to ascertain human needs properly (WWF, 2019). Ecological problems, environmental change, and global warming have become the prime subjects of debates and conferences around the world (Sreen et al., 2018), making "Responsible consumption and production" and "Sustainable cities and communities" as part of Sustainable Development Goals (SDGs) described by United Nations (UN, 2015). To achieve this objective, consistent incorporation of valuable measures for environment protection and conservation of natural resources, with proper market segmentation and improved policies for executing these processes and actions, have become the key concerns for contemporary corporations.

Consequently, green marketing has appeared to answer the needs and wants of environmentally conscious people. American Marketing Association (AMA) defined green marketing as: "Green marketing is the marketing of products that are presumed to be environmentally safe, involves developing and promoting products and services that satisfy customer's wants and need for quality, performance, affordable pricing and convenience without having a detrimental input on the environment" (Nadaf & Nadaf, 2014). Green marketing is indispensable for ecological growth since it creates stability between the environment, industrial development, and human life (Das et al., 2012). Green products have entered numerous markets like energy (Ozaki & Sevastyanova, 2011) and the textile industry (Nguyen et al., 2019). The textile/apparel industry has also negatively impacted the ecosystem with the carbon footprint of production units and landfills from non-ethical consumption and waste (Hill & Lee, 2012).

The increasing market competitiveness, consumer demand, and shorter lifecycle of fashion products have forced companies to adopt unsustainable production/practices (McNeill & Venter, 2019). As a result, environmental and pollution problems have been found in the textile sector due to chemically manufactured fiber, harmful dyes, and carbon footprints (McNeill & Venter, 2019). These adverse effects are being increased due to incremental consumption and disposal usage of fashion products. For example, Pedersen and Anderson (2015) discovered that a total of 86 billion garments were manufactured worldwide in 2011, making it a record production of fiber (polyester and cotton). Environmental problems influence both the real economy and the financial system's stability (Ionescu, 2021). The availability of financial investments corresponding to sustainability goals is met by forming efficient, environmentally friendly transition policies and green production systems (Dunz et al., 2021).

On the one hand, a policy like the Green tax system imposed on textile manufacturers for carbon footprint could benefit the environment and economy (Tang et al., 2021). Furthermore, it drives economies to reduce their carbon footprint by consuming sustainable resources to improve environmental performance and competitiveness (Ionescu, 2020). The green tax system encourages companies to

finance green technologies; thereby, the financial behavior of firms gradually orients towards being ecofriendly (Huang et al., 2020; Zhu et al., 2020). On the other hand, green production systems are also helpful in decreasing various kinds of industrial wastage and improving manufacturing efficiency while reducing the adverse effects on the environment (Gray-Hawkins & Lăzăroiu, 2020). The production firms using smart green systems integrated with supply chain networks improve the firms' financial behavior and enhance sustainability and environmental performance (Horick, 2020; Shao et al., 2021). Fast fashion is driving companies to favour faster seasons, lowering prices, and promoting spontaneous consumption. In addition, the environmental impact has transformed apparel product design and production processes towards more sustainable product lifecycle management based on information dissemination (Dawson, 2021; Tucker, 2021). Prior literature on eco-fashion products reveals a dearth of awareness and knowledge of sustainability mechanisms (Coleman & D'Souza, 2013). Researchers have argued that there is also a lack of understanding among manufacturers, product designers, and marketers about the needs and anticipations of consumers (Niinimäki, 2010).

The concept of green products has attracted significant attention in western countries, but it is still in early development in South Asian countries (Hsu et al., 2017; Lee, 2008; Yadav & Pathak, 2016). However, the trend of green is currently making its roots among South-Asian consumers and companies in Pakistan (Moon et al., 2015; Zahid et al., 2018). In Pakistan, the textile sector contributes 60% of the national exports, 8.5% of the Gross Domestic Product (GDP), and generates 39% of employment opportunities. Globally, Pakistan is the 3rd largest cotton cloth manufacturer and 2nd largest cotton yarn exporter. Despite these bright statistics, Pakistan's apparel industry faces intense competition from regional countries like China, India, and Bangladesh. According to the GOP (2018), the cost of doing business is high due to the inaccessible resources to earn international certification and awareness of sustainable production/process compared to other regional countries.

The theoretical perspective that precisely predicts consumer behaviour is the Theory of Planned behaviour (TPB) developed by Ajzen (1991). Prior scholars (Chan, 2001; Mostafa, 2007) have employed the TPB theory to explain green consumer behaviour. Y. Han and Hansen (2012) described a strong association between subjective norms and attitude on European consumers' intention compared to American and Asian. However, Asian consumers were more conserved by perceived behavioural control (T. Han & Stoel, 2016; Ko and Jin (2017). Due to diverse behaviours in different situations, researchers have extended TPB with additional variables to increase behavioural predictability (Tuyet Mai & Linh, 2017). Marketing researchers have identified environmental apparel knowledge (Khare & Varshneya, 2017), social status (Dabija et al., 2018; Reimers et al., 2017), and consumer's self-concept (Mancha & Yoder, 2015) as substantial and promising antecedents of TPB for further research in the field of green textile products. The impact of EAK on intention to acquire green products has attracted a fair amount of attention over the years. However, knowledge related to green apparel products is far less explored in marketing (Khare, 2019). Knowledge helps the consumer in decision-making that leads to explicit behaviour (Bamberg & Moser, 2007).

Human beings must put their efforts into fulfilling their communal and societal responsibilities. The environmentally conscious people exhibit green behaviour to improve their status in recognition of pro-environment. Therefore, research is needed in pro-environmental behaviour using social status (Kohlova & Urban, 2017). Literature on behavioural research using TPB has also proposed self-concept or self-identity to improve green behavioural prediction (Reimers et al., 2017). However, previous literature has used self-concept differently, so its impact is not fully acknowledged (Reimers et al., 2017). Likewise, Kashima et al. (2014) found that green self-identity significantly impacts green involvement and shopping but has no influence on willingness to use.

The current study has employed the TPB with three additional variables: Environmental Apparel Knowledge (EAK), Social Status (SS), Green self-concept (GSC) as indirect antecedents of purchasing eco-friendly clothing. In the situational context, this study is novel as it contributes to the existing limited literature on green purchase intention and its associations with personal and social norms of knowledge, status, and self-image for young generations in emerging economics like Pakistan.

The remaining sections of this paper are structured as follows: theoretical background highlighted the role of TPB in green consumerism based on which hypotheses are developed. The methodology section illustrates questionnaire designing and data collection tools. Results are analyzed using partial least square (PLS) based structural equation modelling (SEM). The last section provides discussion, conclusion, and future research directions.

2. Theoretical background

2.1. Green behaviour of young generations

Green consumer behaviour denotes acquiring and consuming products/services that are environment friendly, keeping in mind the social consciousness and obligation (Khare, 2019; Nguyen et al., 2019). Prior literature concluded that ecolabels are highly productive in generating positive consumer attitudes (Cerri et al., 2018). However, the green movement has not achieved much success since the market share of green products is a chunk of the consumer market (Rex & Baumann, 2007). For example, consumers are more interested in end-of-life features in the packaging industry but not in recyclable attributes, indicating some misconceptions regarding recycled material in different consumer generations (Herbes et al., 2018).

The two prominent generations of consumers in the clothing industry are Y and Z. Generation Y consumers (born between 1980 and 1994), also known as “Millennials,” because they are obsessed with fashion products, especially in apparel clothing (Hill & Lee, 2012; Jayson, 2006; Nayyar, 2001; Williams & Page, 2011). This generation cohort spends 70% of their income on apparel and fashion products (Bakewell & Mitchell, 2003). Globally, increase in generation Y’s financial resources and population, marketing managers have designed strategies to understand their behaviour (Dabija & Băbut, 2019; Valaei & Nikhashemi, 2017). In addition, generation Y is more concerned about environmental problems (Williams & Page, 2011). From the lens of behavioural psychology, researchers should understand the underlying perception and motivations of Generation Y as clothing is considered a social need and source of self-image. Generation Z, known as the “Internet Generation,” or “Facebook Generation,” is the people born between 1995 and 2010 (Chaturvedi et al., 2020; Tari, 2011). Generation Z consumers are more aware of the knowledge related to ecological problems and motivated to act on pro-environmental behaviour (Adnan et al., 2017). They are more willing to alter their attitude and switch to environmentally friendly products (Amed et al., 2019). Therefore, it is noteworthy to consider this market segment in studies to understand their behaviour towards green products.

2.2. TPB in green consumerism

In the field of green consumerism, scholars have employed Ajzen and Fishbein (1980) TPB to understand the consumer attitude and intention relationships in several industries of green products, for example; energy-saving products (Ha & Janda, 2012), skincare products (Hsu et al., 2017), green packaging (Prakash & Pathak, 2017), and green textile products (Nguyen et al., 2019). In green consumerism, attitudes are the beliefs, approaches, and comfort of a consumer towards the notion of green buying (Mancha & Yoder, 2015). Subjective norm denotes the impact significant others have on an individual to direct his/her attitude towards behaviour (Fishbein & Ajzen, 1975). Therefore, purchase intention depends on two things: firstly, impetus towards willingness to perform a behaviour, and secondly, to what extent a consumer is ready to make efforts in this regard (Chaudhary & Bisai, 2018).

2.3. Hypotheses development

2.3.1. Purchase intention towards green clothing

Scholars have indicated that AT, SN, and PBC are effective contributors in forecasting eco-friendly behaviour and consumption of green apparel (Nguyen et al., 2019). Ko and Jin (2017) also validated the positive association between AT and intention to purchase green apparel. Thus,

H1: Attitude is positively related to purchase intention towards green clothing

In green consumption, subjective norms (SN) are the discernments of peer influence on an individual purchasing or not purchasing an environment-friendly product (Fishbein & Ajzen, 2005). Ha and Janda (2012) found an affirmative association between SN and buying decision of energy-saving products. They stated that AT and SN have a more substantial impact on purchase decisions in European consumers than American or Asian consumers. Nguyen et al. (2019) applied the TPB theory with a materialistic construct to examine the behaviour of green apparel consumers. The results found SN to be the most prominent variable of TPB in measuring PI in the green apparel industry. Other researchers (Khare, 2019; Yadav & Pathak, 2016) also concluded that SN influences purchase intention in green apparel products.

Thus, the following hypothesis is formed based on these studies:

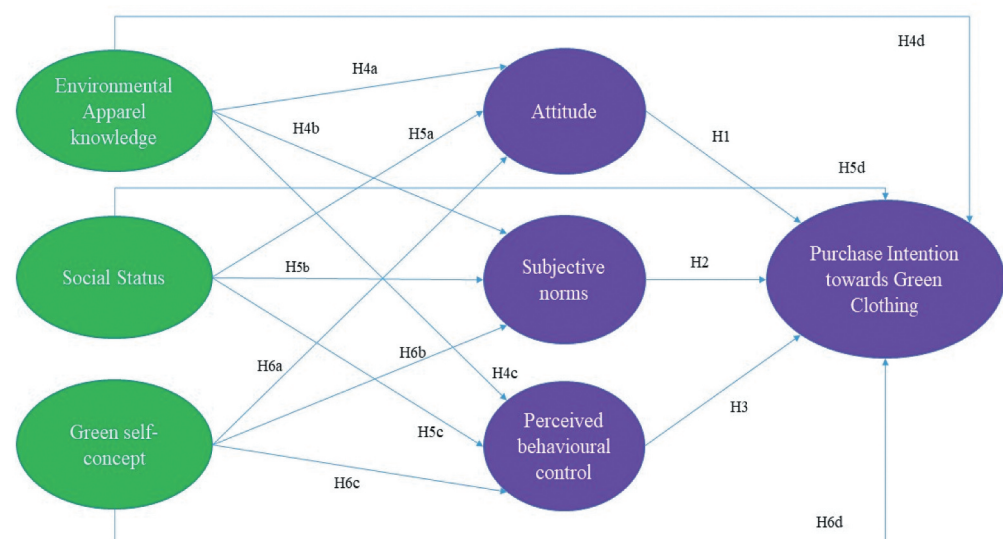
H2: Subjective norms (SN) are positively related to purchase intention towards green clothing.

PBC is described as “an individual’s perceived ease/difficulty in performing a particular behaviour” (Ajzen, 2002). Yadav and Pathak (2016) found a significant positive relation between PBC and intention in studying green products on Indian consumers. Ko and Jin (2017) found a positive impact of internal PBC on the US and Chinese consumers’ purchase intention towards green apparel products, while external PBC only affected Chinese purchase intention. Other scholars (Chaudhary & Bisai, 2018; Nguyen et al., 2019) also explored positive associations between PBC and purchase intention. Therefore:

H3: Perceived behavioural control (PBC) is positively related to purchase intention towards green clothing

Due to the limited capability of the TPB model for its use in diverse situations, the study has extended the model with additional variables for increasing the predictability power of TPB regarding consumer behaviour (Tuyet Mai & Linh, 2017). Previous literature has identified environmental apparel knowledge (EAK) (Khare, 2019), social status (Kohlva & Urban, 2017), and consumer’s self-concept/self-identity (Reimers et al., 2017) as essential and promising antecedents of TPB. Figure 1 illustrates the proposed framework for this study.

Figure 1. Proposed research model.



Environmental Apparel Knowledge (EAK) is factual knowledge about the fibre manufacturing process, dyeing and finishing processes, fibre recycling mechanism, and know-how of the regulations imposed on manufacturers by the government agencies to control air and water pollution in the production process (Khare & Sadachar, 2017). Studies have revealed that the desire to purchase and consume an eco-friendly product is due to comprehensive knowledge about green product perception (Kaufmann et al., 2012). On the contrary, insufficient knowledge can generate uncertainties in forming green purchase behaviour (Chan et al., 2014). In a study on South Asian consumers, Abrar et al. (2018) employed the TPB to investigate the influence of consumer knowledge on attitude towards purchasing green apparel. Furthermore, Chan (2001) illustrated a strong influence of knowledge and ecological concern on Chinese consumers' pro-environmental attitude. So consumers might establish a sound base of knowledge about environmental issues according to social norms (Maichum et al., 2016). Therefore:

H_{4a-d}: *Environmental apparel knowledge (EAK) is positively related to a) attitude, b) subjective norms, c) Perceived behavioural control, d) Purchase intention towards green clothing.*

H_{4e-g}: *The relationship between Environmental apparel knowledge and Purchase intention towards green clothing is mediated by e) attitude, f) subjective norms, g) Perceived behavioural control.*

This study has operationalized Social Status (SS) in terms of self-presentation context. SS of self-presentation is a behaviour of an individual to strive for a higher reputation and recognition from others (Reimers et al., 2017; Sadalla & Krull, 1995). Self-presentation theory suggested that consumers might change their habits and behaviours to get recognition and consideration from significant others (Leary, 1995). Behavioural studies have established a diverse relationship between SS and purchase behaviour. Prior studies also found a negative association between status enhancement and attitude towards environmental problems. For example, De Young (2010) argued that status enhancement motives might result in overconsumption of natural resources and generate future generations' problems. Reimers et al. (2017) employed TPB theory to explain the effect of self-identity, environmental concern, perceived consumer effectiveness, and status enhancement on attitude towards purchasing green apparel. Hence, the current is extending the work of Reimers et al. (2017) by employing SS in the TPB model for fashion consumers. Therefore, it is hypothesized that:

H_{5a-d}: *Social Status is positively related to a) attitude, b) subjective norms, c) Perceived behavioural control, d) Purchase intention towards green clothing.*

H_{5e-g}: *The relationship between Social Status and Purchase intention towards green clothing is mediated by e) attitude, f) subjective norms, g) Perceived behavioural control.*

According to Sprott et al. (2009), "Self-concept can be viewed as a set of self-schemas representing stable knowledge structures about the self that organize incoming self-related information and help people make sense of themselves in their environment." Green self-concept is an extension of self-concept defined by the degree to which a person perceives themselves as pro-environment (Van der Werff et al., 2013). The study concluded that pro-environmental self-identity was a substantial predictor of young consumers' purchase intention towards the green product. McNeill and Venter (2019) argued that fashion is a social need and is the best way to project one's self-image/concept by applying TPB. Other researchers have also found positive links between green self-concept and environmentally responsible behaviour, including recycling, energy conservation, waste reduction, and car usage (Whitmarsh & O'Neill, 2010). In a similar vein, Tuyet Mai and Linh (2017) state that environmentally aware young consumers can produce a socially responsible population segment. Therefore

H_{6a-d}: *Green self-concept is positively related to a) attitude, b) subjective norms, c) Perceived behavioural control, d) Purchase intention towards green clothing.*

H_{6e-g}: *The relationship between Green self-concept and Purchase intention towards green clothing is mediated by e) attitude, f) subjective norms, g) Perceived behavioural control.*

3. Research methodology

3.1. Data collection and sample

Based on positivism research philosophy, a self-administered survey technique was adopted for collecting responses. The sample consisted of fashion consumers of Generation Y (born between 1980 and 1994) and Generation Z (born between 1995 and 2010) from Pakistan obtained through the convenience sampling method because this segment is more fashion cognizant, environmentally aware, and socially active. These generations present 60% of the total population (PBS, 2017). Data was collected between October 2020 to January 2021. Due to the COVID-19 pandemic, an online data collection technique was adopted. The questionnaire was generated via Google Form, and its link was distributed via Facebook, WhatsApp, Linked-In, and personal emails. The respondents have assured about secrecy in participating in the survey. A total of 686 respondents viewed the questionnaire, of which 347 were found valid. The obtained data showed a decent diversity of two generations of consumers (Gen Y: 46.4% and Gen Z: 53.6%). The demographic profile of the respondents has been displayed (see Table 1). The questionnaire was divided into two portions. The first part contained the consumer's demographics (gender, birth year, marital status, education, employment status, and monthly income). Some screening questions were asked to filter the appropriate respondents. The second part consisted of descriptive statements related to the variables of the proposed framework. To reduce the common method bias (CMB) few strategies were adopted: (1) a set of instructions were provided to guide the respondent towards a particular subject, (2) Language of the items was simplified for the sake of understanding, (3) Avoided using double-barrelled questions to eliminate ambiguity, (4) predictor and criterion variable measures were obtained from different data sources.

Table 1. Demographic profile of respondents

	Freq	%Age		Freq	%Age
Generation			Gender		
Generation Y	161	46.4	Male	168	48.4
Generation Z	186	53.6	Female	179	51.6
Education			Monthly Income (PKR)		
High School	15	4.3	0–30k	167	48.1
Bachelors	112	32.3	31k–45k	68	19.6
Masters	111	32.0	46k–60k	37	10.7
MS/ M.Phil.	79	22.8	61k–75k	37	10.7
Ph.D.	30	8.6	>75k	38	11.0
Employment			Marital Status		
Employed	131	37.8	Single	257	74.1
Self-employed	35	10.1	Married	90	25.9
Unemployed	70	20.2			
Student	111	32.0			

3.2. Measurements

The Environmental Apparel Knowledge (EAK) scale was adapted from Kim and Damhorst (1998). The original scale consisted of 11 items, but four items during the pilot study were found to be irrelevant due to non-provision of textile waste-related knowledge to consumers, as pointed out by the apparel industry experts. Seven items were retained, out of which two items were dropped due to poor factor loading, such as “Disposable diapers have largely contributed to textile waste.” Sadalla and Krull (1995) developed a scale SS in a self-presentation context. The scale consisted of 8 items. To measure GSC, the study adopted the 8-items scale from Sprott et al. (2009). AT was measured using the 3-items scale from Chan (2001). The Three-items scale for SN was taken from Armitage et al. (1999). PBC was measured by a 3-items scale adopted from Nguyen et al. (2019). The study employed Chan (2001) 3-items scale for green purchase intention. The study has applied a 7-point Likert scale (1-strongly disagree to 7-strongly agree) for response measurement.

4. Data analysis and results

The study analyzed the collected data through SEM using SmartPLS 3.0. The SEM technique is robust, more accurate, efficient, and convenient than the conventional multivariate statistical tool (Henseler et al., 2015). SEM has two recognized methods: covariance-based SEM (CB-SEM) and Variance-Based SEM (VB-SEM) (Chin & Newsted, 1999). The selection of an appropriate statistical method is vital in social sciences since the unsuitable technique could result in inappropriate outcomes (Ramayah et al., 2010). Since data tend towards normality in social sciences (Osborne, 2010), Partial Least Square (PLS), a VB-SEM technique, is commonly engaged to address normality. It displays results in two stages: the first measurement model (reliability and validity) and the second structural model (hypotheses testing).

4.1. Construct reliability and validity

The measurement model was scrutinized through reliability and validity assessments. Construct reliability is the internal consistency among items of each construct (Chekima et al., 2016). Construct reliability was measured through Cronbach’s alpha and composite reliability (CR). Its value ranges from 0 to 1 (Hair et al., 2014). Table 2 shows measurement model values. All the values are above 0.7 except PBC, which is 0.650, but it is acceptable (Hair et al., 2014). The threshold value for CR is above 0.7, which meets the acceptable criteria (Hair et al., 2014).

Construct Validity assessment was carried out with two measures: convergent validity and discriminant validity. Construct validity describes that adopted items for the specific construct are valid, and sampling is sufficient to get acceptable results (Nunnally & W. B.B., 1978). Convergent validity is estimated through Confirmatory Factor Analysis (CFA) which contains factor loading and Average Value Extracted (AVE) measure. Four were eliminated among the initial 35 items due to lower insignificant factor loading (loading<0.5, $p > .05$). All the other factor loading was significant and within the acceptable range.

Discriminant validity explains that a construct has a stronger relationship with its measures than other discriminant constructs (Hair et al., 2014). There are two methods of measuring discriminant validity; Fornell and Larcker criterion and Heterotrait-Monotrait (HTMT) ratio of correlation. The criterion developed by Fornell and Larcker (1981) posits that the square root of the AVE of each construct should be greater than the squared shared variance with other variables. All the values are greater than the squared shared variances. Henseler et al. (2015) described the HTMT criterion for discriminant validity with the cut-off value of 0.90. Therefore, discriminant validity is indicated. The diagonal values in Table 3 are the square root of AVE.

4.2. Structural model evaluation

A two-fold structural model was developed and tested with SmartPLS. SEM is measured through R-square adjusted and paths significance coefficient of direct and indirect effects. T-statistics was

Table 2. Measurement model					
Construct	Items	Factor Loading	CR	Cronbach's Alpha	AVE
Environmental apparel knowledge	EAK1	0.681	0.832	0.742	0.503
	EAK2	0.763			
	EAK3	0.507			
	EAK4	0.814			
	EAK5	0.740			
Social Status	SS1	0.824	0.933	0.914	0.699
	SS2	0.858			
	SS3	0.814			
	SS4	0.838			
	SS5	0.857			
	SS6	0.824			
(Continued)					

Table2. (Continued)

Construct		Items	Factor Loading	CR	Cronbach's Alpha	AVE
Green self-concept		GSC1	0.750	0.910	0.888	0.560
		GSC2	0.778			
		GSC3	0.726			
		GSC4	0.748			
		GSC5	0.688			
		GSC6	0.775			
		GSC7	0.745			
		GSC8	0.773			
Attitude		AT1	0.913	0.932	0.890	0.820
		AT2	0.914			
		AT3	0.889			
Subjective norms		SN1	0.910	0.921	0.872	0.797
		SN2	0.855			
		SN3	0.911			
(Continued)						

Table2. (Continued)						
Construct		Items	Factor Loading	CR	Cronbach's Alpha	AVE
Perceived behavioural control		PBC1	0.728	0.810	0.650	0.587
		PBC2	0.803			
		PBC3	0.766			
Purchase intention towards green clothing		PIG1	0.876	0.933	0.893	0.823
		PIG2	0.922			
		PIG3	0.923			
Minimum Accepted levels						
Factor loading	CR	Cronbach 'Alpha			AVE	
> 0.5 (Hair et al., 2014)	> 0.7(Hair et al., 2014)	> 0.6 (Nunnally & W. B.B., 1978)			> 0.5 (Hair et al., 2014)	

Table 3. Fornell and Larcker and HTMT Criterion

	AT	EAK	GSC	PBC	PIG	SN	SS
AT	0.905						
EAK	0.392	0.709					
GSC	0.550	0.210	0.748				
PBC	0.583	0.213	0.702	0.766			
PIG	0.811	0.328	0.591	0.613	0.907		
SN	0.672	0.375	0.594	0.633	0.594	0.893	
SS	0.104	0.116	0.518	0.439	0.122	0.409	0.836

EAK: Environmental apparel knowledge, SS: Social Status, GSC: Green self-concept, AT: Attitude, SN: Subjective norms, PBC: Perceived behavioural control, PIG: Purchase intention towards green clothing.

Table 4. R-square

Predictor Construct	Target Construct	R ² Adjusted
EAK, SS, GSC	Attitude (AT)	0.329
EAK, SS, GSC	Subjective Norms (SN)	0.344
EAK, SS, GSC	Perceived Behavioural Control (PBC)	0.318
AT, SN, PBC	Purchase Intention towards green clothing (PIG)	0.555

executed to examine the impact of the path measurements through the bootstrapping method. Bootstrapping is very convenient in establishing results of adjusted R-square values. Table 4 presented the values of adjusted R-square.

The value of R-Square adjusted for AT was found to be 0.329. It means that independent variables (EAK, SS, and GSC) have a 32.9% impact on consumers' attitudes. Similarly, SN showed an R-Square of 0.344, and PBC showed an R-square of 0.318. As presented in Tables 5, 11 relationships were significant out of 15 proposed relationships. SN ($\beta = 0.098$, $p < 0.05$) and for PBC ($\beta = 0.161$, $p < 0.05$) indicates SN and PBC has 9.8% and 16.1% impact on PIG, respectively. The results generated a weak positive effect of EAK on PBC ($\beta = 0.055$), but it was statistically insignificant due to 95% confidence level rejecting H4c. SS has a significant negative impact on attitude towards green apparel ($\beta = -0.179$, $p < 0.05$). Therefore, hypothesis H5a was rejected. A strong positive association was found between GSC and AT towards green apparel ($\beta = 0.545$, $p < 0.05$). Hence, H6a was strongly supported.

Mediation analysis was carried out based on the path significance of direct and indirect relationships, as presented in Table 6. Of 9 mediation hypotheses, only four were supported on a 95% confidence interval, while five were not supported. The strength of the partial mediation was measured through the VAF formula (Henseler et al., 2015). H4e assumed that AT mediates the relationship between EAK and PI towards green clothing. The direct effect of EAK on PIG was positive and significant ($\beta = 0.175$, $t = 3.977$, $p < 0.05$), and the indirect effect through AT was also positive and significant ($\beta = 0.144$, $t = 3.887$, $p < 0.05$), revealing a complementary partial mediation (55%) through AT by supporting H4e. The direct effect of SS on PIG was negative and insignificant ($\beta = -0.073$, $t = 1.847$, $p > 0.05$), and the indirect effect through AT was also negative but significant ($\beta = -0.108$, $t = 3.361$, $p < 0.05$), revealing full mediation through AT by supporting H5e. The direct effect of GSC on PIG was positive and significant ($\beta = 0.449$, $t = 10.718$, $p < 0.05$), and an indirect effect through AT was also positive and significant ($\beta = 0.325$, $t = 7.178$, $p < 0.05$),

Table 5. Direct effects

Hypotheses	Paths	M	SD	T Statistics	P Values	
H1	AT → PIG	0.595	0.053	11.266	0.000	Supported
H2	SN → PIG	0.098	0.045	2.127	0.034	Supported
H3	PBC → PIG	0.161	0.047	3.439	0.001	Supported
H4a	EAK → AT	0.241	0.054	4.330	0.000	Supported
H4b	EAK → SN	0.224	0.049	4.539	0.000	Supported
H4c	EAK → PBC	0.055	0.053	1.032	0.303	Not Supported
H4d	EAK → PIG	0.175	0.043	3.977	0.000	Supported
H5a	SS → AT	-0.179	0.051	3.518	0.000	Not Supported
H5b	SS → SN	0.168	0.055	3.120	0.002	Supported
H5c	SS → PBC	0.112	0.063	1.719	0.086	Not Supported
H5d	SS → PIG	-0.073	0.040	1.847	0.065	Not Supported
H6a	GSC → AT	0.545	0.053	10.366	0.000	Supported
H6b	GSC → SN	0.420	0.055	7.562	0.000	Supported
H6c	GSC → PBC	0.503	0.060	8.336	0.000	Supported
H6d	GSC → PIG	0.449	0.042	10.718	0.000	Supported

Table 6. Mediation analysis

Hypotheses	Paths	Direct Effect	Indirect Effect	Total effect	Remarks
H4e	EAK -> AT -> PIG	$\beta = 0.175^{**}$ $t = 3.977$	$\beta = 0.144^{**}$ $t = 3.887$	$\beta = 0.319$	Supported
H4f	EAK -> SN -> PIG	$\beta = 0.175^{**}$ $t = 3.977$	$\beta = 0.022$ $t = 1.892$	$\beta = 0.197$	Not Supported
H4g	EAK -> PBC -> PIG	$\beta = 0.175^{**}$ $t = 3.977$	$\beta = 0.009$ $t = 0.928$	$\beta = 0.184$	Not Supported
H5e	SS -> AT -> PIG	$\beta = -0.073$ $t = 1.847$	$\beta = -0.106^{*}$ $t = 3.361$	$\beta = -0.179$	Supported
H5f	SS -> SN -> PIG	$\beta = -0.073$ $t = 1.847$	$\beta = 0.016$ $t = 1.794$	$\beta = -0.057$	Not Supported
H5g	SS -> PBC -> PIG	$\beta = -0.073$ $t = 1.847$	$\beta = 0.017$ $t = 1.625$	$\beta = -0.056$	Not Supported
H6e	GSC -> AT -> PIG	$\beta = 0.449^{**}$ $t = 10.718$	$\beta = 0.325^{**}$ $t = 7.178$	$\beta = 0.74$	Supported
H6f	GSC -> SN -> PIG	$\beta = 0.449^{**}$ $t = 10.718$	$\beta = 0.042$ $t = 1.871$	$\beta = 0.491$	Not Supported
H6g	GSC -> PBC -> PIG	$\beta = 0.449^{**}$ $t = 10.718$	$\beta = 0.082^{*}$ $t = 2.782$	$\beta = 0.531$	Supported

revealing a complementary partial mediation (58%) through AT. Hence, H6e was supported. The direct effect of GSC on PIG was positive and significant ($\beta = 0.449$, $t = 10.718$, $p < 0.05$) and indirect effect through PBC was also positive and significant ($\beta = 0.040$, $t = 2.782$, $p < 0.05$) revealing a complementary partial mediation (84%) through PBC. Therefore, H6g was supported.

5. Discussion

After empirically testing the relationship and addressing the gap proposed by (Khare & Varshneya, 2017; Kohlova & Urban, 2017), this study found a positive direct effect of EAK on AT, SN, and PIG. The EAK construct was related to consumers' knowledge of textile production processes and awareness of the ecological effects of textile wastage. The results showed that generation Y and Z consumers in South Asia countries hold a low level of knowledge about the apparel manufacturing process, as supported by previous findings of Abrar et al. (2018), Khalid et al. (2018), and Kakakhel (2016). Moreover, the significant positive effect on SN also posits that expectations of significant others are also be influenced through knowledge in the collectivistic society. However, contrary to previous findings of Kang et al. (2013) interesting finding on EAK was the rejection of the relationship between knowledge and PBC. In the case of South Asian consumers, the internal behaviour control factors of self-ability and external factors of time and money are not affected by the knowledge level of consumers.

The associations of three independent variables of TPB theory and purchase intention towards green clothing are significantly positive. The most influential of the three was attitude, followed by the subjective norm. The findings support the previous works of Nguyen et al. (2019) and Ko and Jin (2017) in the green apparel industry that positive attitudes towards preserving the environment through meaningful actions result in purchase behaviour. The insignificant effect of SS on PBC might be because Social Status cannot be acquired independently, unlike power/rank, but it is related to perceptions of others towards an individual. So, the internal and external control factors of behaviour would have no binding with status recognition motives.

The study revealed that attitude mediates all relationships (EAK, SS, GSC) with PIG. Attitude positively but partially mediated the association of EAK and PIG due to both significant positive direct and indirect effects. It means that the more positive pro-environmental attitude formed with the help

of sound knowledge, the more will be the likelihood of green apparel purchase. Knowledge and awareness of understanding the environmental issues will generate positive attitudes that will result in purchase behaviour. The authors argued that status enhancement motives result in overconsumption of natural resources, thus recognizing a negative attitude towards environmental problems. The most interesting result is that SN did not mediate any relationship. This finding is contrary to Nguyen et al. (2019) and Reimers et al. (2017) in the green apparel industry because it examined samples from the USA, China, and South Korea who retain strong social expectations towards individuals to perform pro-environmental behaviour. However, in Pakistan, attention towards environmental issues is at a low level. Therefore, knowledge creation, status recognition, and self-image building would not result in behavioural intention through social expectations and pressure.

The study also indicated that PBC only mediates GSC and PIG. The findings revealed that self-efficacy, time, and money factors are important for South Asian Y and Z pro-environment consumers towards purchasing green apparel products. However, contrary to Nguyen et al. (2019), PBC did not mediate the relationship of EAK, SS with purchase intention. The possible explanation is that Pakistani Generation Y and Z consumers possess little knowledge about apparel manufacturing and their negative effects on the environment, so they have little control over their behaviour to overcome the problems linked with green clothing consumption. Furthermore, the finding of no mediation of PBC between SS and PIG is apparent to the assumption that self-presentation enhancement motives are dependent on perceptions of significant others, hence will give no control to an individual towards behaviour.

5.1. Conclusion

5.1.1. Managerial implications

This study found that three antecedents of TPB have positive contributions towards green purchase intention, of which attitude had a strong influence on PIG. However, the impact of SN and PBC was low among the young generation of Y and Z consumers. Therefore, marketers need to design effective plans for communicating environmental knowledge to customers to understand the benefits of green apparel. In collectivistic societies, consumers show strong intentions towards buying under the social influence of their significant others. Since Y and Z generations are more digital enthusiasts than generation X, celebrities' endorsements for green apparel campaigns might generate positive attitudes. Marketers should make green clothing items more visible and affordable to minimize the difficulties in buying process. Furthermore, managers should target consumers' "self" through customized services and providing a virtual interface. Such self-image motives generate positive attitudes, social harmony, and control beliefs towards purchase intention. The developing countries are at the initial stage of implementing environmental consumer consciousness; therefore, managers should design those marketing strategies that attract young consumers through education and awareness about green benefits

5.1.2. Theoretical contribution

This research contributed to the existing literature in the following way: Firstly, the study enhances the understanding of consumers' green purchase intention in developing economies such as Pakistan. Secondly, it extended the TPB with three specific values, e.g., knowledge, Social Status, and Green Self-Concept. The understanding of these vital underlying factors could guide marketers in designing a sustainable Customer-base. Finally, this study is empirical evidence towards investigating the purchase intention of the two most prominent generation cohorts, Generation Y and Z in Pakistan. Such studies on the young generation's green clothing purchase behaviour are limited in the South-Asian context.

5.1.3. Limitations and future research directions

The study contained few limitations and future recommendations. Firstly, green textile products were only examined; the researcher could use diversified green products such as green cosmetics, energy-saving appliances, and organic food to validate these findings. Secondly, intervening

constructs such as; materialism, awareness of consequences, and perceived consumer effectiveness could be incorporated for examining behavioural intentions for generation Y and Z consumers. Lastly, the relationship of Social Status and Green Purchase Intention was unclear and call for further research in the South Asian context. Based on the discussion, qualitative research is needed to explore factors of green apparel consumption in developing countries.

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