# Sustainable Apparel and Microfiber Pollution: A Multi-Group Analysis of Consumers within India and Japan Using the Norm Activation Model

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**Abstract**

*Microfiber contamination is largely caused by the textile industry, especially fast fashion. Commonly utilized in the manufacturing of garments, synthetic fibers are strong and reasonably priced, but they also greatly worsen the environment. In the textile sector, sustainable clothing is essential for preventing microfiber pollution and encouraging environmental stewardship. There is not enough empirical evidence to assume that consumer behavior intention for sustainable clothing is applicable in Indian market environments when compared to other developed markets. The purpose of this study is to better understand the psychological factors that influence Indian consumers when compared to consumers from another developed nation(Japan) using the norm activation model. Data for this study was gathered through an online survey. Convenience sampling was used to gather the 382 responses (180 from Japan and 202 from India). The bootstrapping technique and structural equation modeling were used to test the proposed hypothesized relationships. To assess each of the Japanese and Indian cohort's strengths and identify any notable variations between them, a multi-group analysis was employed using Smart Pls version 4. The results reveal that the drivers of purchase intention for sustainable apparel were more or less equal within both cohorts. In addition to providing insightful information to marketers and regulators to help them develop strategies and legislation to achieve sustainability in the apparel sector, the study reaffirms the importance of the Norm Activation Model in promoting the desire to purchase green clothing.*

**Keyword:** *Apparel, Market Environment, Pollution, Psychological Factors.*

## Introduction

The manufacture of plastics increased rapidly in the latter part of the 20th century, and there are now many different types of plastics with various properties that appeal to different industries(Galvão et al., 2020).The requirement for plastic products and synthetic polymers has grown rapidly; approximately 391 million metric tons (MMT) of these substances have been manufactured worldwide in 2021(Statista, 2022).Moreover, by 2050, this amount is expected to rise to 589 MMT.Plastic particles, both micro and macroplastic, have started to build up in the atmosphere and on the surface of the Earth due to their massive rates of manufacture and use (Periyasamy, 2023). A variety of materials can produce microplastics, including tires, artificial turf, road signs, water-resistant materials, cosmetic and personal care items, and plastic pellets that have been manufactured(Cole et al., 2011).

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Nowadays, it's thought that microplastics are present everywhere in aquatic settings(Prata, 2018).Apart from plastic fibers derived from petroleum, synthetic cellulose fibers such as viscose rayon have also been found in various ecosystems of deep-sea sediment and macroinvertebrate fish. This has led to a rise in the scientific community's attention to this type of plastic pollution, which is typically disregarded(Collard et al., 2015; Remy et al., 2015; Woodall et al., 2014).Synthetic textiles such as polyester, nylon, and acrylic shed microscopic synthetic fibers called microfibers, which are less than 5 mm. Microfibers are very difficult to remove from the environment once they are discharged. Because of this, scientists have recently concentrated on learning about the mechanisms by which microfibers are shed, their sources and routes into the environment, and the methods available for capturing microfibers at the point of emission(Erdle et al., 2021).The home washing of clothes has the greatest likelihood of producing microplastics among these sources(O'Brien et al., 2020).

The second most polluting business in the world, falling behind agriculture, is the apparel and textiles sector, which is responsible for 20% of global water pollution,(World Bank, 2019). Textiles are treated with dyes, finishing agents, and specialty chemicals in water bath Fabrics undergo mechanical and chemical treatments during dyeing, finishing, and coating procedures, which can weaken the fibers and increase the likelihood that they will shed microfibers(Gam & Banning, 2011). Eventually, the water is recycled back into the environment, typically with little effort made to eliminate the chemicals and micro-fibersutilized during manufacturing(H. J. Jung et al., 2021).As a result, the lengthy processes involved in the creation of clothing have a detrimental effect on the environment(Nayak et al., 2020).Furthermore, developing nations generate 50% of global textile exports and 75% of global apparel exports(Belzagui & Gutiérrez-Bouzán, 2022). There are few water treatment facilities and environmental controls are not typically a top priority for the governments of some of these nations(Mara, 2013).

As the Western nations became aware of the environmental impacts of unsustainable production facilities (H. J. Jung et al., 2021), the majority of textile production in wealthy nations (such as the United States, Canada, Germany, and the United Kingdom) has moved abroad to developing nations.Wealthy nations typically have purification plants with stronger filtration and infrastructure, which allows them to catch more microfibers before they get into water bodies.Nevertheless, a sizable quantity of microfibers manages to get past filtration devices and into rivers.When customers in these nations conceived how clothing production affected the environment in the 1960s, they forced the clothing business to rethink and alter its unsustainable methods(Tey et al., 2018). This led to the creation of sustainable apparel and fashion(Cataldi et al., 2010; S. Jung & Jin, 2014).Several factors go into making sustainable clothing, such as the use of sustainable and pro-environmental materials in its development over the years(Henninger et al., 2016; Vehmas et al., 2018).

Environmentally conscious apparel is in demand, and manufacturers are looking for ways to satisfy this need without sacrificing profitability(Gam & Banning, 2011). Fashion illustrators and sellers are driven to implement sustainable design and production practices in response to these trends. Organic fabrics and eco-friendly dyes are two examples of sustainable solutions. By giving preference to natural fibers like hemp and organic cotton, which shed fewer microfibers than synthetic materials, sustainable clothing can help minimize the pollution caused by microfibers. For example, organic cotton is used by Coop Switzerland, Levi Strauss & Co., Marks & Spencer, Nike, and Noir (Black & Anderson, 2010; DeLong, 2009; Exchange, 2007).Additionally, producers are selling textiles created from regenerated or recycled fibers which reduces the need for new plastics, and concentrate on making long-lasting apparel that requires fewer washes. (Gam & Banning, 2011).One such product is Mart Ex's "eco2cotton," a cloth created from about wasted yards (Marks, 2007).

In the meantime, a wide range of theoretical frameworks have been used by several researches conducted in different countries to examine sustainable clothing purchasing practices. Furthermore, the Norm Activation Model (NAM) (Schwartz, 1977), has been utilizedin contemporary research to enhance the capacity to explain pro-environmental actions(Le & Nguyen, 2022).The study will also enable a more sophisticated understanding of consumer behaviorusing the Norm Activation Model and will allow us to compare the buying intentions of consumers in industrialized and developing countries concerning green apparel. Additionally, by providing new theoretical insights into related environmental behavior theories, this study will aid in the successful promotion of sustainability in a variety of situations, thereby promoting the global push towards eco-friendly clothing. Lastly, by comprehending the variations in purchasing intents between two different destinations stakeholders and policymakers can more effectively establish scenarios that foster sustainable fashion.

## 2. Literature Review and Hypothesis Development

### 2.1 Norm Activation Model

A method for integrating a moral standard into environmental actions is suggested by the norm activation model (NAM)(Schwartz, 1977).The paradigm has found widespread application in the context of socially conscious conduct, encompassing pro-environmental behaviors(Duong, 2023; Duong et al., 2022; Elhoushy & Ribeiro, 2024). The NAM contains three cardinal variables, namely personal norms, awareness of consequences, and ascription of responsibility. Personal norms are described as a "moral duty to carry out or abstain from particular activities"(Hosta & Zabkar, 2021a). A key component of the NAM is the personal norm, which is utilized to instantly predict pro-social behavior(He & Zhan, 2018).The ability to recognize the repercussions of one's actions, whether they be positive or harmful, for others or other values, is an indicator of awareness of consequences. In terms of the ascription of responsibility, it is defined as "perceived accountability for the adverse outcomes resulting from non-prosocial behavior"(De Groot & Steg, 2009). NAM may be tailored to various cultural and social contexts(Duong, 2023; Fang et al., 2019; Sethuraman et al., 2023), which makes it appropriate for researching a wide range of populations, including those in developed and developing countries. In conclusion, the Norm Activation Model enables a thorough knowledge of the variables influencing consumers' intentions to purchase sustainable clothing.

#### a) Awareness of consequences

Awareness of the consequences determines if people are aware of the negative effects of their non-environmentally friendly actions and can encourage them to act in a pro-social manner by activating personal norms(He & Zhan, 2018).Additionally, prior studies have demonstrated that awareness of the consequences favors personal norms related to pro-environmental behaviors, like recycling e-waste (Echegaray & Hansstein, 2017)and using second-hand goods(Borusiak et al., 2020).This research characterises consumer awareness of consequences as knowing that wearing non-sustainable apparel has some drawbacks, like water and environmental contamination. People seem to accept normative modifications to increase environmental quality, which influences them to act in ways that are ecologically friendly or to disapprove of traditional behaviors that degrade the environment. Customers would therefore feel obligated to purchase sustainable clothing if they were aware of the detrimental effects of textile industry. Therefore, we assume that;

*Hypothesis 1: Awareness of consequences positively affects consumers' personal norms*

#### b) Ascription of responsibility

The ascription of responsibility is described as a sense of accountability for the

unfavorable outcomes of acting in a non-pro-social way(De Groot & Steg, 2009). Norm Activation Theory states that an individual's obligation to act in a way that benefits others is contingent upon at least two factors: the individual's sense of personal responsibility and their comprehension of the consequences of a particular action(Vining & Ebreo, 1992).The ascription of responsibility is another factor that activates the personal norm in addition to awareness of the consequences(Setiawan et al., 2021).As a result, when someone understands the detrimental effects of not acting in an ecologically conscious manner, they would rather blame themselves as consumers for these negative effects and take responsibility for their lack of environmental awareness.This argument offers a solid basis for the claim that accepting ownership of the adverse consequences of wearing non-sustainable clothing is positively correlated with personal norms. Thus, we propose;

*Hypothesis 2: Ascription of responsibility positively affects consumers' personal norms*

**c) Personal Norm**

A fundamental element of the Norm Activation model is the personal norm, which is described as the sense of moral duty to carry out or abstain from a certain activity(Schwartz, 1977). The phrase "personal norm" refers to self-expectations for certain actions in specific circumstances that are created by individuals as a sense of moral obligation to behave. These expectations are based on internalized values, personalities, and habits(Setiawan et al., 2021).As a result, the personal norm differs from subjective norms that emphasize the normative effect of other significant individuals and organizations(Hameed et al., 2019).Prior research has consistently shown that the propensity to buy green products is positively influenced by personal norms(Fang et al., 2019; Hosta & Zabkar, 2021). The findings of the research synthesis further demonstrate that personal norms are a significant intrinsic component that promotes the behavioral intention of buying sustainable clothing. We propose;

*Hypothesis 3: Personal norm has a positive impact on intention.*

**2.2 Cross-National Perspectives on Green Apparel Consumption (Japan Vs India)**

It is anticipated that Japan, a highly industrialized nation with the greatest GDP per person in North-East Asia and a reputation for leading the way in environmental innovation within the region, is going to direct reforms related to sustainable consumption and development throughout the Asia-Pacific region(ESCAP, 2017).It is anticipated that developed nations will be pivotal in advancing sustainability in subregions; Japan, of course, is a major player in value chains utilizing resource-efficient production techniques(Lim et al., 2019). However, compared to rich nations, India has significantly less infrastructure for sustainable conduct because it is still a developing nation.Prior research on consumers' green purchase intentions and behaviors has primarily been conducted in developed countries, which reveals their attitudes and perspectives toward buying green items(Khare, 2015).This is why the current study compares the industrialized economy of Japan with that of India in order to better understand how consumers behave while purchasing green items in developing countries.

Research findings in marketing and consumer behavior that purport to be universally valid have been sharply criticized, particularly when those conclusions originate from a highly skewed sample of the population in Western developed nations(Guarín & Knorringa, 2014).The researchers contend that factors related to culture, society, politics, and the physical world all have a major role in shaping the context in which decisions are made and how people behave when it comes to consuming(Agrawal & Gupta, 2018).Studies undertaken in the developed world may not accurately reflect the behavior of customers in the developing world, necessitating further research to better understand consumer behavior in these regions. Studying consumer Behavior in emerging nations is crucial since these nations appear destined

to play a bigger role in the global arena, in addition to having various environments that affect behavior(Scott & Vigar-Ellis, 2014).

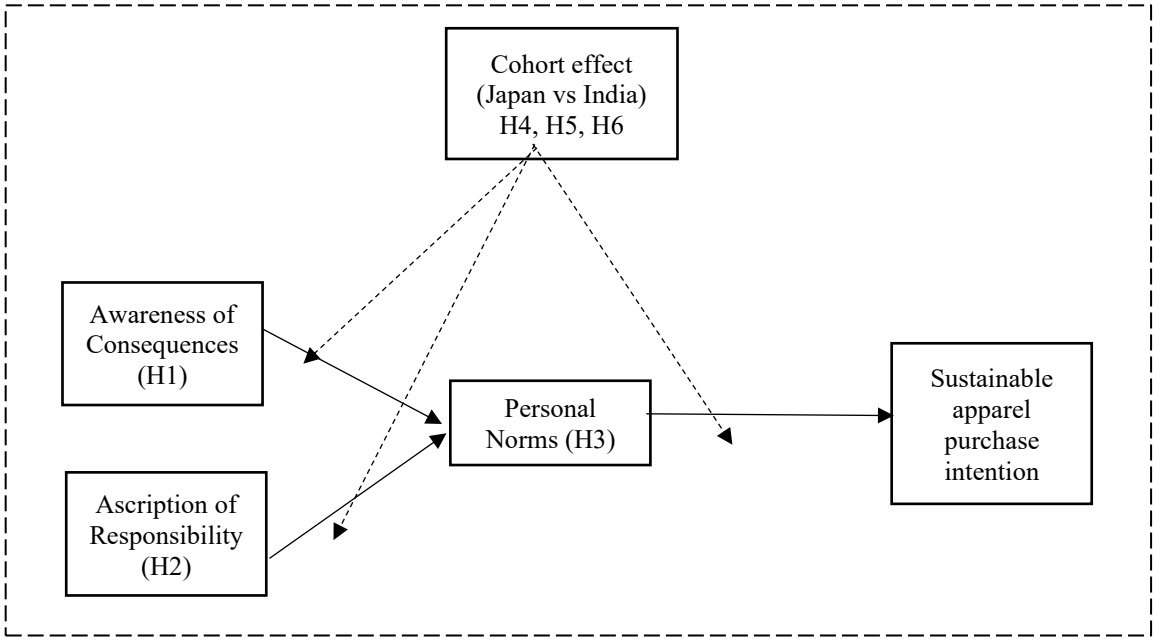
An examination of environmentally conscious consumer behavior regarding sustainable apparel in both developed and developing countries would enhance and complement the body of existing literature, as there is a deficiency in the former's proper, comprehensive, and focused examination of these behaviors (Agrawal & Gupta, 2018).The bulk of the world's population, who reside predominantly in low-income or economically disadvantaged nations, must also be dedicated to sustainability for the planet to be saved, even if exposure to the sustainability movement is probably restricted in these areas(Scott & Vigar-Ellis, 2014). In a novel endeavor, the study attempts to undertake a cross-cultural study on consumers from the developing nation India and the developed nation Japan to learn how consumers in the two nations establish their desire to buy eco-friendly clothing. Therefore, the goal of the current study was to determine the degree of awareness, attitudes, and conduct about ecologically friendly apparel in both developed and developing countries. Thus, the study proposes the following hypotheses;

*Hypothesis 4: The strength of the relationship between awareness of consequences and personal norms will be significantly different between Japanese and Indians*

*Hypothesis 5: The strength of the relationship between ascription of responsibility and personal norms will be significantly different between Japanese and Indians*

*Hypothesis 6: The strength of the relationship between personal norms and purchasing intentions of sustainable apparel will be significantly different between Japanese and Indians*

## 3. Proposed Research Model




## 4. Data collection and measurement development

A self-reported online questionnaire was employed in the empirical investigation, and it was directed at the general public in India and Japan who were above the age of 18.This method worked well enough to obtain a large enough sample size for an analysis using structural equation modeling (SEM). Data for this study was gathered through an online survey.The invitation messages and links were delivered by email or posted on well-known discussion

forums like Quora and Redditto boost the number of responses. Additionally, an advertisement offering recognition to those who answered every question was put. The snowball and convenient sampling methods were applied. Every response was kept private and utilized exclusively for scholarly research.

After removing those who failed to complete every aspect of the self-administered questionnaire, 382 of the 489 responses (180 from Japan and 202 from India) were used.A pre-survey was conducted to fine-tune the questionnaires before the commencement of the large-scale survey.Multiple questions and a 5-point Likert-type scale were used to measure the study's components. Every measurement item was borrowed and slightly altered to be suitable for the current investigation after being validated in earlier research. Scores varied from 1 (strongly disagree) to 5 (strongly agree) for every measurement item across all categories. The demographic profile of respondents for the study is presented in Table 1.

We developed our measure scale using a back-to-back translation technique because the adopted items were in English. First, a researcher whose mother tongue is Japanese translated the original materials into Japanese. Another researcher then translated these Japanese items back into English. Additionally, the two researchers verified the Japanese version of the questionnaire by comparing the two English versions. Three statements regarding personal norms were chosen from Hopper & Nielsen (1991)to be incorporated into the survey questionnaire. Four statements on awareness of consequences and four statements for ascription of responsibility were adopted from a study byZhang et al. (2013). Four items were selected from Barbarossa et al. (2015) and Trivedi et al. (2018) to measure purchase intentions for sustainable apparel.

**Table 1.** Sample Profile

| | **Japan** | | **India** | |
|---|---|---|---|---|
| | **Number** | **%** | **Number** | **%** |
| **Gender** | | | | |
| Female | 109 | 60.55 | 86 | 42.57 |
| Male | 71 | 39.45 | 116 | 57.43 |
| **Education** | | | | |
| High school or less | 19 | 10.56 | 39 | 19.32 |
| Graduate | 72 | 40 | 56 | 27.72 |
| Postgraduate | 60 | 33.33 | 89 | 44.05 |
| Doctorate | 29 | 16.11 | 18 | 8.91 |
| **Age** | | | | |
| 18–27 | 33 | 18.33 | 65 | 32.17 |
| 28–42 | 58 | 32.22 | 78 | 38.61 |
| 42–54 | 71 | 39.45 | 40 | 19.80 |
| 55 and above | 18 | 10 | 19 | 9.42 |

*Source: The current study*

## 5. Results and Discussion

### 5.1. Assessment of measurement Model

We performed confirmatory factor analysis (CFA) because the scales had been modified and taken from earlier research. Several measurements, such as Cronbach's alpha,Composite reliability (CR), and item loadings, were used to assess the measurement reliability in SmartPLS version 4. The Average Variance Extracted (AVE) was used to assess the convergent validity of the measurements. Table 2 demonstrates the good reliability of the measurement scales in the research framework, with Cron-bach's alpha values, composite reliability(Fornell & Larcker, 1981), and item loadings of more than 0.70 (Hair et al., 2017)with the exception of loadings for AC3, AC4, and AR1. All three loadings of concern were retained using Hair et al (2017) criteria for deletion or retention of reflective indicators. The discriminant validity of each reflective scale included in the framework was assessed using the Heterotrait-Monotrait Ratio (HTMT) matrix criteria (Table 4).Positive assessments were given to the HTMT ratio, which was less than 0.85in all the cases(Henseler et al., 2015).The HTMT matrix over the Fornell and Larker criteria has been retained in the paper because of its strong capacity to evaluate discriminate validity(Riyaz et al., 2024).

**Table 2.** Reliability of measurements. Items

| Constructs | Items | Loadings | Cronbach's Alpha | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|---|---|---|---|---|---|
| **Awareness of Consequences** | AC1 | 0.904 | 0.710 | 0.805 | 0.519 |
| | AC2 | 0.763 | | | |
| | AC3 | 0.665* | | | |
| | AC4 | 0.486* | | | |
| **Ascription of Responsibility** | AR1 | 0.558* | 0.765 | 0.854 | 0.599 |
| | AR2 | 0.810 | | | |
| | AR3 | 0.828 | | | |
| | AR4 | 0.863 | | | |
| **Personal norm** | PN1 | 0.841 | 0.763 | 0.864 | 0.681 |
| | PN2 | 0.895 | | | |
| | PN3 | 0.731 | | | |
| **Purchase intention** | PI1 | 0.839 | 0.836 | 0.890 | 0.670 |
| | PI2 | 0.859 | | | |
| | PI3 | 0.805 | | | |
| | PI4 | 0.769 | | | |

**Table 3.** Discriminant validity of measurements.

| | PI | AR | AC | PN |
|---|---|---|---|---|
| **PI** | | | | |
| **AR** | 0.626 | | | |
| **AC** | 0.056 | 0.059 | | |
| **PN** | 0.465 | 0.479 | 0.129 | |

### 5.2 Structural Equation Modeling Analysis

To assess the statistical significance of the variables in the structural model, we performed a bootstrapping study using 5000 samples and a 0.05 significant level. All hypotheses with p-values less than 0.05 were accepted, as indicated in Table 4.The findings indicate a positive correlation between awareness of the consequences and personal norms for selecting sustainable clothing ($\beta = 0.112$, $p < 0.05$). Further, the ascription of responsibility is positively correlated with personal norms ($\beta = 0.363$, $p < 0.001$). We also found out that personal norms positively affect purchase intention for sustainable apparel ($\beta = 0.222$, $p < 0.001$). H1, H2, and H3 were therefore supported.

**Table 4:** Hypothesis—path coefficients.

| Hypothesis | Path | Path Coefficient | Sample Mean | Standard Deviation | T Statistics [\|O/STDEV\|] | p Values | Result |
|---|---|---|---|---|---|---|---|
| **H1** | AC→PN | 0.112 | 0.120 | 0.051 | 2.183 | 0.029 | *Accepted* |
| **H2** | AR→PN | 0.363 | 0.364 | 0.055 | 6.581 | 0.000 | *Accepted* |
| **H3** | PN→PI | 0.222 | 0.222 | 0.050 | 4.410 | 0.000 | *Accepted* |

### 5.3 Multi-group Analysis

Before conducting multigroup analyses to ascertain the moderating effects of country of origin (India vs. Japan), the MICOM approach was used to evaluate the model's measurement invariance.Because the groups' PLS models, data treatment, and algorithm parameters were all the same, configural invariance was established(MICOM Step 1).The model's compositional invariance (MICOM Step 2) was evaluated using the SmartPLS Permutation process; the outcomes are shown in Table 5.Multigroup analyses were made possible by the establishment of partial measurement invariance, which was made possible by the fulfillment of the requirements for Steps 1 and 2 of the three-step MICOM technique.

**Table 5:** Results of invariance measurement testing

| **Step 1** | | **Step 2** | | | | **Step 3** | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Constructs** | **Conf. Inv** | **Original correlation** | **5.0%** | **Permu-tation p-value** | **Comp Inv** | **Original difference** | **95.0%** | **Permutation p-value** | **Measur. Invar. Estab** |
| Awareness of Consequences | Yes | 0.956 | 0.337 | 0.774 | Yes | -0.073 | (-0.149; 0.159) | 0.215 | Yes |
| Ascription of Responsibility | Yes | 0.999 | 0.990 | 0.804 | Yes | 0.022 | (-0.148; 0.143) | 0.396 | Yes |
| Personal Norms | Yes | 0.998 | 0.991 | 0.509 | Yes | -0.117 | (-0.151; 0.149) | 0.110 | Yes |
| purchase intention | Yes | 1.000 | 0.997 | 0.730 | Yes | -0.032 | (-0.158; 0.158) | 0.351 | Yes |

The permutation test verifies the constructs' means and variances (step 3), suggesting that there are variations in the structural model between the two groups. This indicates that complete

measurement invariance has been demonstrated, hence validating the MGA's performance (Henseler et al., 2015). Testing for substantial changes in parameter estimates between previously designated data groups is made possible by the MGA(Bordian et al., 2023).At the 5% likelihood of error level, the results will be significant if the p-value is less than 0.05 or higher than 0.95(Dorce et al., 2021).It can be said that the country-specific group has a moderating effect if the gap is substantial. As a result, H4, H5, H6are not supported. The results for measurement invariance testing are reported in Table 5 and Multi-group analysis is presented in Table 6.

**Table 6:** Henseler's MGA Results

| Hypothesis | Relationships | Beta Coeff. India | Beta Coeff. Japan | Beta. Diff. | Henseler's MGA p-value | Result |
|---|---|---|---|---|---|---|
| H4 | AC→PN | 0.076 | 0.150 | -0.074 | 0.545 | *Not-accepted* |
| H5 | AR→PN | 0.391 | 0.342 | 0.049 | 0.650 | *Not-accepted* |
| H6 | PN→PI | 0.287 | 0.157 | 0.130 | 0.199 | *Not-accepted* |

## 6. Discussion

This study adopted the aforementioned NAM theoretical framework to investigate how personal norms, awareness of consequences, and ascription of responsibility impact people green buying behavior for green clothing within the people of India and Japan. The findings of this study are consistent with previous research conducted in other countries. The personal norm has a greater impact because consumers in Japan and India are naturally concerned about the environment and have a favorable opinion about it, which motivates them to purchase green clothing as it is thought to be safer and more environmentally friendly. Since there are environmental problems with garments throughout their entire life cycle (Belzagui & Gutiérrez-Bouzán, 2022), determining and bolstering the factors that encourage the adoption of eco-friendly clothing can ultimately reduce the problems associated with the production of microfibers.Therefore, by examining the factors that influence consumers in both developed and developing nations' intentions to buy this new category of items, the current study contributes to our understanding of green buying behavior.

### 6.1 Theoretical implications

By investigating consumers' acceptance of the newest category of environmentally conscious clothes, the current study adds to the body of knowledge on green consumption behavior from a theoretical standpoint. After determining the large-scale demand for these items in both developed and developing countries, the textile sector, which can significantly reduce the generation of microfibers by upgrading their processes or products(Belzagui & Gutiérrez-Bouzán, 2022), can expand their production levels. The findings of this research show that encouraging people's personal norms can increase their desire to wear eco-friendly apparel. This study aimed to investigate whether and to what extent consumers who purchase environmentally friendly apparel from two distinct countries (developed and developing) have diverse interests and preferences. The present investigation examines how well the NAM model applies to purchasing environmentally friendly clothing in India and Japan. The findings indicate similarities between the two countries in terms of comparable consumption levels and a greater inclination for eco-friendly apparel. This emphasizes significant

ramifications for both academics and professionals in the green apparel industry. Also, according to research on the norm activation model, which has been employed in previous studies on green consumer behavior, personal norms, and green purchasing intentions are highly correlated(Duong et al., 2022; Khare, 2015; Li et al., 2021).By performing a multi-group analysis, the results of the current study lend credence to the notion that consumers' personal norms (a key component of the norm activation model) do influence their intentions to purchase eco-friendly products for the category of sustainable apparel, particularly among those in the developed and developing economies of Japan and India.

### 6.2 Practical implications

The results have theoretical significance, but they can also assist marketers in creating captivating strategies globally. Given the crucial roles that personal norms, responsibility attributes, and consequence awareness play in predicting green purchasing behavior, marketers should develop communication messages that provide background information on environmental issues that are pertinent to the product and describe how the product can help reduce ecological issues. Customers may be better able to comprehend the environmental issue at hand and make more informed purchasing decisions using this method. To highlight the negative effects of environmental abuse, green marketers could use factual information to create a negative motive appeal, such as problem avoidance or problem eradication, aimed at green consumers. This strategy might persuade green consumers to look for further information in order to alleviate their sense of dissonance and then adopt the desired action. Furthermore, emotional advertising appeals may heighten ecological concern by making consumers more anxious about a deteriorating environment. Thus, in the present study's conclusions, marketers cannot just say that their products would alter the world. They ought to back up this assertion with references to environmental difficulties (i.e., information) and challenges that the product has addressed.

### 6.3 Limitations and further research

The study's limitations indicate areas that require further investigation. Firstly, instead of predicting actual behaviors, the current study forecasts consumers' intentions. There will always be a discrepancy between purchasing intention and actual behavior, which calls for a longitudinal study design to highlight the main drivers of the demand for environmentally friendly clothing. Secondarily, the study's data was gathered using convenience sampling from easily accessible locations. It is therefore essential to investigate whether the results also apply to other geographical regions as the application of convenience sampling may limit how far the results of this study may be applied. Lastly, the results of this empirical study, which was carried out in Japan and India, cannot be extrapolated to other nations or political structures. To compare India with other nations and identify any relevant parallels or differences, more research is needed.

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