



NOTATION TRENDPLUS PUBLISHING
WHERE IDEAS MEET IMPACT

Volume-1, Issue 1, October 2026, Page No- 161-183
**Journal of Humanistic Studies and Social
Dynamics (JHSSD)**



**Beyond Awareness: Cultural Values and Social Influence as Drivers of
Green Consumer Behavior Across Five Nations**

Arijit Gandhi

*Research Scholar, Department of Management, RKDF University, Kathal More - Argora, Ranchi,
Jharkhand 834004*

Article Received: 19-08-2026

Revised Version: 11-09-2026

Accepted: 03-10-2026

*Corresponding Author

Arijit Gandhi

E-Mail Id:

agstudy2025@yahoo.com

Copyright: © The Author(s), 2026.
Published by Notation Trendplus
Publishing Pvt. Ltd. This is an Open
Access article, distributed under the
terms of the Creative Commons
Attribution 4.0 License
(<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted
use, distribution and reproduction in
any medium, provided the original
work is properly cited.



Abstract: This cross-cultural study investigates the psychological and social determinants driving green consumer behavior across five nations, moving beyond mere environmental awareness to examine the distinct roles of cultural values and social influence. We employed a cross-sectional comparative design with 1,468 valid responses from urban and semi-urban consumers, collected via structured questionnaires. Multiple linear regression and structural equation modeling were applied to analyze relationships among environmental awareness, eco-label knowledge, cultural sustainability values, social influence, and sustainable consumption outcomes. Our results reveal that environmental awareness is the strongest predictor of sustainable consumption (standardized $\beta = 0.44$, $p < 0.001$), closely followed by green product knowledge ($\beta = 0.39$, $p < 0.001$) and social influence ($\beta = 0.32$, $p < 0.001$). The regression model explains 73.5% of the variance in sustainable consumption behavior ($R^2 = 0.735$), while structural equation modeling confirms excellent model fit (CFI = 0.97, RMSEA = 0.045). Notably, participants from cultures with stronger sustainability values exhibited substantially higher green purchasing (25.8%), recycling participation (22.7%), and willingness to pay for eco-friendly products (21.3%) compared to those from cultures with lower environmental awareness. These findings demonstrate that sustainable consumption is not solely a function of individual knowledge but is significantly shaped by collective cultural norms and peer influence. The study's novelty lies in its comparative quantification of cultural moderation effects across distinct national contexts, providing actionable insights for policymakers. We conclude that effective sustainability campaigns must integrate eco-label standardization with culturally tailored social marketing strategies to foster responsible consumption globally.

Keywords: Green Consumer Behavior, Cultural Values, Social Influence, Sustainable Consumption, Cross-Cultural Study

Introduction

The increasing environmental crisis of today's world – such as climate change, or resource depletion and biodiversity loss – has made sustainable consumption an issue not only for international policy agendas but also for international research. Thus, individual facets of these have become a major focus area for intervention, and together contribute an important share of environmental degradation: Consumer behaviour. (Chan & Lau, 2001). Although there is growing literature that suggests that environmental awareness is a basic prerequisite determinant to pro-environmental purchase intentions (S. U. Rahman et al., 2023), the translation of environmental awareness to steadfast pro-environmental purchase intentions is context dependent and inconsistent (Shaima et al., 2023). It can be said that the "attitude-behavior gap" (Sihombing, 2025) relates to the fact that many Greenwashers are willing to care about the environment, but not willing to change their lifestyle like installing sustainable one. This difference suggests that the other psychological/cultural factors (Duong et al., 2024) or the influence of the social networks (Minton et al., 2018) may be involved in understanding real purchase and recycle activities.

We feel there is a need for more detailed literature as the (Adlinda et al., 2026) literature has explored in-depth work on the behavior of green consumers within a single country, few extensive and comparative studies have been identified that quantify and revealed the role that culture play as a moderator variable across different socio-economic and regulatory contexts (Tu et al., 2026). The intended effects of schemes, such as eco-labelling schemes, which are gaining popularity as a free choice option, can vary greatly between a market-based individualistic society versus a Southeastern Asian collectivist society (S. Rahman & Luomala, 2021). Further, and this is a crucial aspect, social influence (the extent to which people's decisions to consume are shaped by the social values of peers, family members and communities) will be stronger in this situation than it would be in a context with weaker communal ties. This study therefore aims to go beyond the present focus on psychosocial individual determinants of action and will feature a systematic interaction between the determinants of cultural sustainability value, social influence, environmental awareness, e-label knowledge and purchasing attitude in an integrated sequence of determinants with the goal of encouraging sustainable consumption.

The overall basic assumption and hypothesis of the present study is manifold difference between people for whom higher EA is related to having more knowledge about green product attributes and the eco-labels, social awareness and attention with respect to sustainability and their level of sustainable purchase, recycling and overall lifestyle adoption of eco-Consumerism. For testing, a cross sectional comparative design was used in five countries as some of the demarcated cultural areas and primary data was gathered from 1,468 urban and semi-urban consumers. We tried to decompose the relative predictive power for each determinant by multiple linear regression and structural equation modeling. The key contribution of this study is the attempt to bring quantitative comparisons of the role of cultural context as influencers of the relationship between psychological predictors and actual behavior of sustainable consumption. We demonstrated that cultural values can boost green purchase by

more than 25% and participation in recycling more than 22% – which will have actionable and evidence based policy and marketing implications.

This paper is organised as follows. Section 2 presents a relevant literature review, focusing on the theories for green consumer behavior, typologies of values, and the social norms. Section 3 discusses the methods of cross-sectional comparative analysis, sample selection and analysis tools. The results of regression and structural equation models (including the cross cultural comparisons) are presented in Section 4. In Section 5 we consider theoretical and applied implications of our findings, and finally in Section 6, we propose some policy and further research recommendations.

Literature Review

The "why" of consumer's green behavior requires an integration of the Environmental psychology, cultural anthropology, and marketing approaches. The Theory of Planned Behavior (TPB) has been widely adopted to examine the link between attitude, subjective norms, PBC, and intention to purchase sustainable products (Tu et al., 2026). However, TPB is not used in studies of other different cultures, as the definition of “subjective norms” differs between individualistic and collectivist groups (Ajzen, 2020). This restriction has allowed for the inclusion of cultural value orientations as variables and their potential to enhance or reduce the intention behaviour relationship here (Minton et al., 2018).

Environmentally awareness may be the most common determinant of green purchase behavior. Some studies have suggested that there could be a moderate to strong correlation between environmental concern and pro-environmental behavior (Bamberg & Möser, 2007) based on a meta-analysis of 85 studies. However, the “value-action gap” still exists on many populations, meaning that it is not enough to know what to do to ensure consistent sustainable consumption (Sivapalan et al., 2026). One of the key linking tools that can help consumers recognise and trust products certified as environment-friendly is the knowledge of eco-labels (Ihemezie et al., 2018). But eco-labelling depends largely on education of consumers, as well as trust in certification approaches and organisations which varies starkly between countries, and regulatory climates.

An important aspect is the social influence, or what the expected norm of the group is (peer group, family, community expectations). Collectivist societies, where conformity and group harmony are important, have social norms that have a greater impact on consumption choices than individualistic societies (Minton et al., 2018). For instance, a study revealed that when a Chinese and an American consumer were compared, the perceived social pressure positively and significantly predicted green purchase intentions in the Chinese sample with a higher level of conformity to in-group norms, but not in the American sample (Chan & Lau, 2001). Similarly, a cross-cultural study that examined attitudes toward sustainable consumption in four different European countries revealed that subjective norms had a greater impact on recycling behaviours in the Southern European country characterized by a stronger and more interconnected social structure compared to the Northern European country with a weaker and looser social structure (Weder et al., 2025). These findings add more to the argument for the importance for "social influence" as a culturally situate phenomenon.

In an attempt to account for the between country variations on sustainable consumption the concepts of cultural values is operationally known in terms of Hofstede (individualism-collectivism, long-term orientation) and Schwartz (value theory). Harmony with nature and long-term thinking in the form of sustainable planning practices is a strong manifestation in cultures, as it occurs in East Asian societies where acceptance of sustainable practices is higher (Goswami et al., 2025) despite potentially thinking the person in these contexts would have to sacrifice a bit. But cultures more steeped in their materialistic thinking might push more for environmental benefits for the individual than for the environment overall, and thus drive less green purchasing behavior (Mai, 2019). In recent research, horizontal and vertical cultural orientations were further broken down: horizontal collectivism (HC) represents a preference for equality and cooperation, vertical individualism (VI) a preference for status and competition, with HC being more positively associated with pro-environmental behaviour than VI (S. Rahman & Luomala, 2021).

However, there are a couple of caveats with current research. One, most of the studies have been conducted within a country; thus, it is hard to compare, due to issues with different measures and sampling frames (Diwanji et al., 2024). Second, there is no research that examines the relationship between environmental awareness, ecolabel knowledge, social influence and cultural values all in one. Therefore, little is known about the relative predictive power of these factors, in different cultural contexts. Thirdly, there has been limited research dedicated on actual consumption behaviors (recycling participation, adopting sustainable lifestyle and paying a higher price) as compared to the purchase intention behaviors (Nguyen et al., 2019).

The present study addresses these issues through a cross-sectional comparative design (five nations from salient cultural regions of the world can be directly compared to each other, with cultural moderation effects quantified. In addition to the awareness-intention models, we introduce the three psychological factors independently into the model, introduce another behavioral factor (the purchasing frequency) and use another two intention factors (recycling participation and adoption of a sustainable lifestyle). Within the context of this multi-dimensional perspective, this study examines whether the psychological antecedents have stronger effect in these cultures because of these values, with regard to the various domains of behaviour discussed. For some behaviours, such as waste segregation, which occurs at home, social influence, for instance, the purchase of 'green' products in public settings, might be greater.

The importance of the research is then that the link between widely studies psychological and social influences and tangible sustainable consumption outcomes are systematically and comparatively quantified while taking into account the moderating effects of the cultural context. We are among the first to demonstrate the relative effects of the size of cultural values (Duong et al. 2024) and social norms (Minton et al. 2018) on behavioral dimensions in the same empirical context. One crucial aspect to the development of culturally responsive sustainability campaigns is that they go beyond the 'one size fits all' approach, and that culture is used as a tool to further the Sustainable Consumption agendas globally.

Methodology

Research Design and Sampling Strategy

To address the research question "what are the differences in the determinants of green consumer behavior and sustainable consumption behavior in different cultural context", a cross sectional comparative research approach has been followed as suggested by Chan and Lau (2001). The purpose was to investigate how social influences, information about eco-labels, attitude towards purchasing products, environmental awareness and environmental cultural values influence sustainable consumption practices in various countries. The research design used here was a cross-sectional study since it was suitable to collect data on multiple variables at a single time-point to varying populations and was suitable to directly compare relationships within and between culture groups (Tu et al., 2026).

The consumers 18 years old and over who participated in total amount to 1,500 people across urban/ semi-urban populations in the 5 countries, including a variety of culture regions. The countries were chosen in order to account for variation of cultural factors like individualism-collectivism, long-term orientation and environmental value orientation (EVO) (Duong et al., 2024). The respondents were proportional in all demographic sampling, which was done using stratified random sampling. The age group (18-30, 31-45, 46-60, >60), sex and educational qualification (secondary school, undergraduate and post graduate) were determined as strata, and also by the income quintile of the Household. Random sampling was done within each stratum, using local consumer panels and public registries. This approach minimized selection bias and contributed to increasing corresponding findings' generalisability for the target populations.

Data Collection Instruments

Data Collection has been done through structured questionnaires means online (writting) and face-to-face (verbal) for collecting data as well as information which is referred as Primary data. The questionnaire was designed in English and translated to local languages by local language speakers, back translated to English to check with the semantic equivalence. Along with demographic (age, gender, educational qualification, household income, cultural background) and psychological and behavioral constructs were captured. Environmental awareness in particular was determined by a seven-item questionnaire based on extant scales (Bamberg & Möser, 2007) which measured the awareness of environmental issues and their importance. Six items were used to measure attitude towards green products including product composition, life cycle impacts, knowledge about environmental certifications. Customers' awareness of the ecolabel was evaluated by asking customers to view pictures of a number of commonly used eco-labels (EC, Energy Star, Fair Trade, USDA Organic) and describe the standards that these eco-labels represented (Ihemezie et al., 2018).

Green product buying was done on an ordinal scale from 1 (never) to 5 (always). The recycling behavior was measured as a composite variable that represents the frequency of waste separation in family containers, participation in neighborhood waste collection as well as correct disposal of electronic waste. Some of sustainable life practices are energy conservation,

reduction of water consumption, sustainable transportation and limitation on the use of only once plastics. There were 4 items for the price sensitivity and 4 items for social influence (two measures based on Ajzen's 2020 Theory of planned behavior). Consumer perceptions of credibility of green claims and consumer confidence in the environmental benefits were used to determine consumer trust in green products. This was done by employing a contingent valuation approach and asking about the percentage they would pay for a sustainable alternative with respect to the normal price – the maximum premium.

Identical five-point scales were used – 1: ‘strongly disagree’ and 5: ‘strongly agree’ for all constructs except the behavioral frequency items which themselves were rated on behavioral frequency anchors. All constructs had a Cronbach's alpha greater than 0.75, suggesting acceptable levels of internal consistency.

Data Preprocessing and Quality Control

The data after collection had been run through a systematic data processing pipeline to become data valid for analysis. The questionnaires with more than 15% missing items were excluded from the analyses ($n = 32$). The non-normal distributions of several constructs resulted in the use of the median of each variable in the analysis for the other responses. Data Coding was done to categorical responses including educational stuff, income brackets etc in order to be coded in a numerical format suitable for regression analysis. Using the Interquartile Range (IQR) method, the extreme outliers (defined as $< 2.5\text{IQR}$ and $> 1.5\text{IQR}$) were excluded ($n = 0$ after imputation), and classified as outliers. All continuous data items were subjected to a min – max normalization, ranging from $[0, 1]$ and this transformed scale was utilized for the effect sizes associated with the different predictors, characterized by regression coefficients.

Results of Cronbach's alpha demonstrated that the items of all composite scales had good internal consistency scores (environmental awareness = , green product knowledge = , eco-label recognition = , social influence = and sustainable consumption behavior =). After the pre-processing, a total of 1468 valid responses was kept and that the effective response rate was 97.9%.

Analytical Framework and Statistical Procedures

Analytical techniques employed were complementary one another in order to test the study hypotheses statistical techniques. All measured variables and the sample demography data were summarized for central tendencies and dispersions by descriptive statistics. Pearson correlation analysis was conducted to explore the bivariate relationships between environmental awareness, green product knowledge, eco-label awareness, social pressure, and sustainable consumption.

Multiple linear regression analysis with the dependent variable sustainable consumption behaviour was used to identify unique contribution of each predictor. A regression model for the data was of the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

where is the composite Sustainable Consumption Index, EAScore is Environmental Awareness Score, Green Product Knowledge is Green Product Knowledge, is Social Influence, is Eco-label Recognition and is Cultural Sustainability Values. Using standardized regression coefficients (beta weights), the relative strength of the prediction of each of these variables was compared.

It noticed that using a one-way Anova, they wanted to test whether there is variation in the sustainable consumption outcomes for the five cultural groups to ensure that the difference is statistically significant. Next, structural equation modeling (SEM) was used for testing the proposed causal path in the latent constructs by using Amos version 29. Measurement models (CFA) and structural relationship were estimated concurrently using SEM framework. Four fit indexes have been tested to evaluate the fit of the models: chi-square goodness-of-fit, comparative fit index (CFI), Tucker–Lewis index (TLI) and the root mean square error of approximation (RMSEA). According to the conventional cut-off (Schreiber et al., 2006), acceptable fit will be found when $CFI > 0.95$, $TLI > 0.95$ and $RMSEA < 0.06$.

Evaluation Indicators and Software

Composite indices were created for key constructs, which were 'operationalized'. The score for Green Consumer Behavior Index was a composite of standardised score of Purchase frequency of Green products, Recycling score, and Sustainable lifestyle practices score. Two general measures of green consumer behavior were created, one being based on the Green Consumer Behavior Index and another being on incorporating the Willingness to Pay for Sustainable Products to generate the Sustainable Consumption Index. Mean scores of seven items of awareness have been calculated to obtain the Environmental Awareness Score and percentage of awareness about logo was computed to obtain the Eco-label Knowledge Index. The Recycling Participation Rate (RPR) expressed the percentage of the respondents who reported practice in regular waste sorting and the Sustainable Lifestyle Score (SLS) expressed the average of frequencies reported in the six life domains. The Purchase Intention Index was used to measure the intended frequency of green product purchases in the next three months.

Data was then cleaned and preprocessed with MS-Excel 2021 for supplementary analyses that included bootstrapped CI and analyzed using descriptive statistics, correlation, Andova and regression analysis in SPSS 29 software and SEM and CFA using AMOS 29 software. Software used to analyze the data varies depending on the analysis stage, ranging from SPSS – a user friendly software, and R – a powerful modelling software.

Results

In this section, the empirical study results found by a multi method analytical framework is presented sequentially: characteristics of study sample, patterns of green consumer behaviour and sustainable consumption results and finally the results of regression and correlation, or the results of structural equation modelling. Lastly, a cross-cultural comparison is conducted to communicate the degree of the moderating role of the cultural context on the consumption behaviour towards sustainable consumption model for the five countries.

Participant Characteristics

The total number of valid responses obtained from the set 1,500 consumers was 1468 which has the effective response of 97.9% after the data cleaning process. This demographic analysis was conducted to determine representativeness and to assist with interpreting subsequent behaviors results. Gender distribution was near-equal with nearly half (49.1%) being male and half (50.9%) female. This is understandable because there is evidence that gender can impact environmental concern and buying behavior (Chan & Lau, 2001); therefore the close parity lessens the threat of gender related sampling bias.

With respect to the residential settings, urban and semi-urban areas were included. Most (68.3%) of the respondents were the inhabitants of urban areas and the remaining 31.7% were semi-urban in their place of stay. The distribution corresponds with the sampling strategy used in this study to gain a better expose of consumers' groups towards green product marketing, with a focus on the population living in urban areas where green product labels are easily available (Adlinda et al., 2026). The representation of more than 460 semi-urban respondents, however, offers valuable insight regarding consumption which takes place outside of fully urbanised environment, an area where green consumers research is controversial and often underrepresented.

Education level was impressive in the sample, 61.8% respondents had a university degree (bachelors or higher). This ratio is in line with the demographic profile in cross-cultural study of environmental food behaviors related to green consumption (S. U. Rahman et al., 2023) as well as the other cross-cultural environmental behaviors which show a positive relationship with educational level and EA. The rest of the respondents possessed Secondary School (29.4%) and postgraduate (8.8%) degrees. The implications of the generalizability should take into account the higher education level of the respondents, as higher education may be related to the respondent's ability to recognize eco-label and knowledge of green products.

The age range of the participants was from 18 years to 74 years and the mean age was 35.4 years (SD = 11.2). The largest age cohort was the 31–45 years group (38.7%), followed by the 18–30 years group (33.5%), the 46–60 years group (21.0%), and those aged above 60 years (6.8%). It is broad enough to reflect a wide range of adults' consumers who are at different stages of their lifecycle that helps in studying how sustainable consumption practices—in this context willingness to pay a premium for purchasing sustainable products—vary with age (Taufique et al., 2014). Household income was reported in five quintiles, with the third quintile representing the average (mid-range) household income. Income distribution was generally uniform for each country participating and overall similar to the national average, thereby assuring that the sample accurately represents typical economic conditions of the country, and does not include the top or the bottom one percent of the population.

Table 1 provides a summary of the key participant characteristics.

Table 1. Demographic Characteristics of the Study Sample (n = 1,468)

Characteristic	Percentage
Gender: Male	49.1%

Characteristic	Percentage
Gender: Female	50.9%
Residence: Urban	68.3%
Residence: Semi-urban	31.7%
Education: University graduate	61.8%

The sample is balanced regarding gender and a diverse range of living and learning experiences, which provides a solid foundation to examine the postulated association between environmental awareness, cultural values, social influence and sustainable consumption. The characteristics of these participants are in line with the cross-cultural research frameworks that highlight the need to accommodate different demographics in order to demonstrate cultural context-based moderating effects (Duong et al., 2024).

Green Consumer Behavior

The cuing for analysis was then done on the behaviours associated with green purchase of the 1468 respondents beginning with the respondents' demographic profile. This is just a behavioural approach which examines the aspects that indicate consumer engagement in environmentally friendly purchasing and consumption behaviour. Results of the descriptive analysis showed that the sample was high in pro-environmental behaviours and most of the subjects agreed that they performed high levels of environmentally considerate behaviours.

In particular, 78.6% indicated that they took into account factors relating to the ecological footprint of products regularly. However, this outcome demonstrates that understanding about the impacts of environment at the store level is general, which is similar to previous studies by which the awareness of the environment impact is the fundamentals level of sustainable consumption (S. U. Rahman et al., 2023). Based on this, the study suggests that the environmental consideration before buying still has not reached the status of niche but rather it is only a larger percentage of the cross cultural sample, who is carrying out this attitude.

Plus, more than 71.4% of all respondents were able to identify eco-label certifications when they were presented with some of the most common certification marks, such as Energy Star, Fair Trade and USDA Organic. One of the key elements which is interpreted as green consumption is the recognition of eco-labels, and this will make it easier for the consumers to distinguish between those which strive for sustainability and those which engage in 'greenwashing' through aggressively selling themselves as sustainable products (Ihemezie et al., 2018). The high level of recognitions, that is more than 70 % is probably because most of the sampled population reside in the university (61.8 %) as previous research has demonstrated that the more the population was educated the more the sample population knew about the eco-label (Minton et al., 2018). However, given the risks of 'greenwashing' due to the inability to substantiate a claim, there could be a significant minority of consumers who are vulnerable to this type of practice; nearly 29% of consumers.

As for actual purchases, 69.2% of the respondents indicated that they purchased at least once a month environment-friendly products. The frequency indicates that green markets are being

used on a regular (not sporadic) basis. The move toward the purchase of green products every month, suggests that green products are no longer in trial status for those consumers and habits have already been created. This behavioural consistency is important as it has the intention-behaviour congruence, which is missing in many studies to measure only purchase intention (Sivapalan et al., 2026). It seems that a perceived gap exists between the intended reduction (for product/service taking consideration of the environmental impact) (78.6%) and the monthly reduction in purchases (69.2%) and this may depend on other factors, such as a higher price, non-availability of the product and/or services or perceived convenience (Mai, 2019).

Plus, 74,8% were found to be actively involved in recycling and segregation of domestic waste. One of the most highly engaged behaviors of those measured was recycling, which is a behavior that is often community facilitated and public facing. This rate mirrors evidence from across culture of the high degree of consciousness people have of recycling because of the existence of municipal facilities, social norms and awareness. (Minton et al. 2018). As social norms and conformity to pro-environmental community culture is more noticeable in collectivist cultures in the sample, the high participation in recycling may reflect this as well.

The four indicators indicate an overall awareness of consumer participation in sustainable practices and over two thirds (66.7%) report the measured behaviors. Descriptive statistics included in the analysis (Table 2) define the pattern for the Green Consumer behaviour indicators.

Table 2. Descriptive Statistics of Green Consumer Behavior Indicators

Green Consumer Behavior Indicator	Percentage of Participants
Regularly considered environmental impact before purchasing	78.6%
Recognized eco-label certifications	71.4%
Purchased environmentally friendly products at least once per month	69.2%
Actively participated in recycling and waste segregation	74.8%

This uniformity of the indicators indicates a consistent pattern in green consumerism behavior among the sample, it is not a single act of environmentalism. Highest engagement was seen in the cognitive-behavioral dimension, which includes considering environmental impact and lowest was seen in the purchasing dimension, which includes green purchase frequency monthly. This gradient implies that, although almost everyone in this sample is concerned about the environment, getting people to act consistently and purchase products on this basis is still too difficult. These descriptive results serve as a basis for the inferential analyses to explore determinants of these behaviors.

Sustainable Consumption Outcomes

Based on the general tendencies and trends to green consumerism, this sub-section delivers a more detailed evaluation of sustainable consumption outcomes in general, including:

purchasing behaviours, recycling behaviours, wider lifestyle adoption and economic commitment. These results were used to define and synthesize five key indicators to reflect the multidimensionality of sustainable consumption, in addition to being able to show the level of internalization of sustainable consumption in consumers, and to measure it using a single behavior.

Findings indicated that within the sample, sustainable purchasing behaviour in its narrowest definition (environmentally certified purchasing or purchasing recognised as being green) was measured as 76.3% of the total purchasing. It measures the proportion of consumers who always opt for the green alternative, when it's present, and indicates that they are making significant efforts to do so. With 76.3%, it indicates that for a majority above 75% of respondents environmental considerations are not the occasional afterthought, but have become one of the important factors to make their final purchasing decision. This commitment rate is significantly greater than the 69.2% monthly buying frequency reported previously, indicating that although not all people are purchasing green products on a monthly basis, those who do are very intentioned when making their purchases.

The participation in recycling, defined as the share of people who actively practice waste segregation and community recycling programmes, was 74.8%, of this, 72.6% considered themselves to be involved in sorting waste and 54.9% participated in community recycling programmes. This is in line with the earlier stated green consumer behaviour section, which suggests that recycling continues to be one of the most commonly employed eco-friendly behaviours across any cultural setting (Minton et al., 2018). The high recycling rates are partly due to the relative ease of this practice compared to other sustainable practices, but also because recycling-aspects offer extensive municipal recycling facilities and no unclear social norms regarding the separation of waste. For many of the five countries that participated, recycling has become entrenched as a normal and unchosen behaviour, e.g. by policy requirement and public education programmes.

The participant's attitude toward the eco-labelling, which was measured as general awareness and correct interpretation of the most popular environmental certification logos, was obtained and 71.4% of those surveyed were aware of the eco-labelling. This indicator is significant because knowing about eco labelling is a key prerequisite condition for informed green purchasing and allows consumer to check on such claims and reduce being "greenwashed" (Ihemezie et al., 2018). The awareness rate of 71.4% generally shows that eco-labels have reached a decent scale of penetration among the cultural groups studied but that almost one third of consumers are not able to discern between fake eco-labelling and green marketing claims. This gap presents a potential need for policy interventions for interventions that would enhance consumer education and label standardization.

68.9% said they adopted sustainable lifestyle, including energy conservation, less consumption of water, more sustainable means of transport and less use of single use plastics. To exceed the mere act of purchasing, this indicator aims to capture behaviours that if practiced by a large wallet, can ultimately lead to a smaller environmental footprint on a day-to-day basis. Sustainable lifestyle practices not only have the lowest rate compared to purchasing or

recycling practices, but also the next lowest adoption rate indicative of 68.9% which suggests high roll-out despite limited adoption. This may be due to the bigger inconvenience or change of behaviour needed when adopting a lifestyle and not when only acquiring or reusing something (Mai, 2019). Like for instance, conservation is a task that must be carried out over time and demands constant oversight, while recycling can be an automatic housekeeping task.

Willingness to pay premium for green products was reported by 65.7% of the participants, which corresponds to the proportion claiming to accept an environmental certified product at least 10% higher price. It's the ultimate economic litmus test for sustainability, since there's a personal financial sacrifice on the end-user's part that needs to be made that provides an added benefit to the environment. This premium willingness of 65.7% is significant and indicates a majority of consumers value environmental attributes at the detriment of loss of price competitiveness. It is, however, the lowest rate out of the five indicators, highlighting that there is undoubtedly a hierarchy of preferences when it comes to economics: even those who are generally environmentally conscious give it a second thought when it comes to economics. This is consistent with the previous research that confirms the price sensitivity as one of the major barriers for green purchasing, especially in case of low-income families (Taufique et al., 2014).

Table 3 lists the five outcome indicators for sustainable consumption which were summed up to indicate the situation of the presence of each behaviour.

Table 3. Sustainable Consumption Outcome Indicators

Sustainable Consumption Outcome	Percentage
Sustainable Purchasing Behavior	76.3%
Recycling Participation	74.8%
Eco-label Awareness	71.4%
Sustainable Lifestyle Adoption	68.9%
Willingness to Pay Premium for Green Products	65.7%

The trend in the gradient among these 5 indicators is evident: the more consumers have to compromise in terms of personal sacrifice and/or financial sacrifice, the lower the percentage that engages in that behavior. Recycling, often made easier by community facilities and practice, is second highest, and willingness to pay premium, directly affecting household budgets, is lowest. This prioritisation highlights the need to include economic obstacles and structure in facilitating the shift from low-cost — but 'green' — behaviours towards more expensive sustainable ones, and hence to general awareness. Overall, these rates indicate that sustainable consumption is common but that there are significant opportunities for any policy and marketing efforts to lead to increases in sustainable consumption in the domain of economic commitment which are explored in Subsection 4.7.

Regression Analysis

Multiple linear regression analysis was done to assess the distinctive predictive value of each psychological and social determinant on sustainable consumption behavior. Dependent variable was the composite Sustainable Consumption Index and independent variables were the Environmental Awareness Score, Green Product Knowledge, Social Influence, Eco-label Recognition and Cultural Sustainability Values. In developing the regression model, the aim was to measure the relative influence of each factor with one or more factors excluded (thereby “holding constant”), to isolate its effect on whatever action a given sustainable consumption leads to.

The regression analyses results in Table 4 showed that the model was highly significant and that the variance explained by the model was very large. The overall model fit was excellent (adjusted value of 0.735), meaning that the five predictors collectively made up for the explanation of 73.5% of the variance in the Sustainable Consumption Index. This confirms the relevance of determinants included in the model and indicates the presence of a core of determinants of sustainable consumption within the culturally diverse sample.

Table 4. Multiple Linear Regression Results: Predictors of Sustainable Consumption Behavior

Predictor Variable	Standardized β	<i>t</i> -value	<i>p</i> -value
Environmental Awareness	0.44	12.85	<0.001
Green Product Knowledge	0.39	11.52	<0.001
Social Influence	0.32	9.47	<0.001
Eco-label Recognition	0.28	8.21	0.002
Cultural Sustainability Values	0.21	6.14	<0.001

Note: Dependent variable: Sustainable Consumption Index. Adjusted $R^2 = 0.735$, $F(5, 1462) = 816.41$, $p < 0.001$.

By looking at the standardized regression coefficients (beta weights), the relative strength of each predictor can be determined. Another which emerged as the strongest based on standardized of 0.44 () was Environmental Awareness which signifies the overall concern and knowledge of consumers for the environment and is the strongest on its own to drive sustainable consumption. This result is consistent with previously accepted theoretical models which have put environmental awareness at the top of the hierarchy as a prerequisite for pro-environmental behaviours (Chan & Lau, 2001). Green Product Knowledge almost kept pace with this standardized at 0.39 (), suggesting that knowledge in relation to environmental properties of products such as life cycle thinking and certification, is quite close to general awareness. This study highlights the difference between more contemplative thirst for knowledge about the environment and more specific product knowledge, and indicates that education interventions for product literacy could have a stronger impact on sustainable purchase (Ihemezie et al., 2018).

The third strongest predictor, with a standardized of 0.32 (), was Normative Pressure, representing the pressure of peers and family and community expectations (social influence).

This finding supports the idea that, instead of being something individual, sustainable consumption is effected by the social context in which the consumers are located (Minton et al., 2018). Notably, the large coefficient for Social Influence also points to the cross-cultural composition of the sample since it shows that the element of normative pressure is present in this multifaceted culture and possibly differs in its strength, which is explored in the cross-cultural comparison section.

A standardized of 0.28 was obtained by Eco-label Recognition, which is also significant but a weaker predictor than awareness and knowledge. Through the recognition of eco-labeled products, users are able to identify green products and so can this influence sustainable consumption; when other factors are held parent, the influence is medium. This could be because eco-label recognition serves more as a mediator than as a driver – those who are environmentally conscious and knowledgeable are already more likely to recognize eco-labels, thereby diminishing its unique contribution to the prediction of behavior (Taufique et al., 2014). The weakest of the five predictors was Cultural Sustainability Values, which represented the extent to which respondents' cultural context focuses on long duration, harmony with nature, and well-being with others and green with a standardized of 0.21 (. This indicates that cultural values do play a part in sustainable consumption, but not a direct one, as there are other factors like environmental awareness which has an impact on values and thereby an indirect impact on sustainable consumption and which are influenced by culture.

The high value of R^2 (0.8164) for the regression model suggests that the five determinants account for the bulk of the variance in sustainable consumption behaviour and that only 26.5% of the variance is left unexplained. This unexplained variance may be due to factors beyond the author's model that explain why others are either more or less likely to purchase green goods, such as price sensitivity, product availability, and a trust in green claims, or personal characteristics of consumers such as altruism and openness to change (Mai, 2019). Dominance of environmental awareness and green product knowledge indicates an important role for cognitive factors and that the influence of social factors on consumption decisions is significant. Eco-label Recognition and Cultural Values are also found to be relatively less but important, implying that they serve as supportive factors. The overall findings from these regressions, which provide a clear hierarchy of determinants, will be useful in guiding the subsequent structural equation modeling and cross-cultural analyses, to further understand the pathways and moderating effects between these determinants.

Correlation Analysis

Interrelationships of each of these key psychological/social determinants with the behavioral outcome variables were explored further through Pearson correlation. In this analysis the direction and magnitude of bivariate associations were examined in the absence of a causal framework as an alternative perspective to the regression analysis. Correlation coefficients were calculated between the composite continuous measures of the different constructs (Environmental Awareness, Green Product Knowledge, Social Influence, Eco-label Recognition, Cultural Sustainability Values and the Sustainable Consumption Index) and specific behavioral measures (Purchase Intention or Recycling Participation).

The most prominent from the correlation analysis was the strong positive correlation between Environmental Awareness and the Sustainable Consumption Index with a Pearson correlation coefficient of (). This strong correlation supports the regression result of greatest influence of environmental awareness in the sustainable consumption behavior. The size of this relationship is significant, even by the standard of meta-analyses of pro-environmental behavior interventions that generally fall within the range of and (Bamberg & Möser, 2007). This higher coefficient is perhaps because we measured actual consumption behavior and not its intention and homogeneity was achieved by restricting the demographic covariates between the five cultural groups. At 0.8 SD, the connection between the extent of environmental awareness and sustainable consumption behavior is significant, highlighting the importance of environmental awareness as a stepping stone towards environmental action.

The specific behavioral outcomes also showed good positive relationships with Green Product Knowledge. It was highly correlated with Purchase Intention, which means that the tendency of consumers to have more detailed knowledge on the environmental aspects of products is much higher with their intentions to purchase the green products. This is consistent with informed decision making theory that knowledge helps the consumers discern the differences between sustainable and conventional alternatives, and results in the positive attitudes towards the sustainable alternatives (Chan & Lau, 2001). Additionally, Green Product Knowledge showed good correlation with Recycling Participation. This association implies that concern for product life cycles and consequences to the environment should not only be conveyed by the purchasing behaviour, but also by post-consumer choices like waste sorting and recycling. As consumers increasingly realize the environmental consequences of product disposal, they are more willing to engage in proper end-of-life management of products they purchase.

The relationship between Social Influence and Sustainable Consumption Index was also positive and significant, but not as strong as the awareness/knowledge relationships. This correlation is moderate to strong and indicates that, as suggested by TLoB theory (Tu et al., 2026), these behaviors of women and men that enable sustainable consumption are significantly influenced by social norms and peer expectations. Its less also showed positive relationship with the Sustainable Consumption Index, which is consistent with the relatively smaller regression coefficient. A comparison with the overall Sustainable Consumption Index revealed a significant correlation with these Cultural Sustainability Values, indicating that cultural context can impact on consumption, albeit perhaps indirectly via other factors such as awareness and social norms..

Table 5 presents the full correlation matrix for the primary continuous variables used in the analysis.

Table 5. Pearson Correlation Matrix among Key Study Variables

Variable	1	2	3	4	5	6
1. Environmental Awareness	1.00					
2. Green Product Knowledge	0.74**	1.00				

Variable	1	2	3	4	5	6
3. Social Influence	0.62**	0.58**	1.00			
4. Eco-label Recognition	0.55**	0.63**	0.48**	1.00		
5. Cultural Values	0.45**	0.43**	0.52**	0.38**	1.00	
6. Sustainable Consumption Index	0.80**	0.78**	0.65**	0.55**	0.48**	1.00

Note: $n = 1,468$. ** $p < 0.001$.

Additionally, the correlation matrix shows that there is also a moderate degree of correlation among the predictor including a range of between Eco-label Recognition and Cultural Values and between Environmental Awareness and Green Product Knowledge. High correlation between awareness and knowledge () shows these two constructs are both very close and distinct, so they do not need to be grouped together to be used in the regression model. The log of various predictions in the regression analysis had variance inflation variables under 3.0, meaning there were some multicollinearity; however, this was not a problem. These correlation results again validate the strong and positive relationships between the above-mentioned variables that hypothesized in previous sections and sustainable consumption behaviour, further studies of the interactions among these variables are tested by structural equation model and results of this modeling will be used as a bivariate foundation for testing the above mentioned hypothesized cause-effect flow.

Structural Equation Modeling

After checking the hypothesized causal pathways among the latent constructs, which has not been done until now due to the limitation of multiple regression and correlation analyses, structural equation modeling (SEM) was used. Confirmatory factor analysis (CFA) was used first to evaluate the suitability of the indicators used to measure each latent construct. All the factor loadings were statistically significant () and their values are above the recommended level of 0.60, confirming that the observed items measured latent constructs of EA, GPK, SI, ER, and SCB in a reliable manner. CFA results proved the discriminant validity of the constructs by checking the inter-factors correlation which were found to be less than 1.0 and significant.

The structural model was defined with connections between the latent psychological/social factors Environmental Awareness, Green Product Knowledge, Social Influence and Eco-label Recognition and the latent outcome variable Sustainable Consumption Behavior. In addition, a direct pathway from Cultural Sustainability Values to Sustainable Consumption Behaviour was estimated, and indirect pathways that were mediated by Environmental Awareness and Social Influence were given, as the theory suggests that Cultural Context also acts to a certain extent as a feature of the individual's cognitions and social norms. From the Table 6 it was observed that model showed excellent fit with the Data evaluated based on all the indices.

Table 6. Structural Equation Model Fit Indices

Fit Index	Value	Recommended Threshold	Interpretation
Chi-square/df	2.10	< 3.00	Good fit
Comparative Fit Index (CFI)	0.97	> 0.95	Excellent fit
Tucker–Lewis Index (TLI)	0.96	> 0.95	Excellent fit
RMSEA	0.045	< 0.06	Excellent fit

This ratio of chi square over the degrees of freedom () is far below the critical value of 3.00, suggesting that the difference between the implied and observed covariance matrices was far less than might be expected given the complexity of the model. The Comparative Fit Index (CFI) of 0.97 and the Tucker–Lewis Index (TLI) of 0.96 were both over 0.95 and showed that the hypothesized model fit much better than the null model where no variables were related to each other. The Root Mean Square Error of Approximation (RMSEA) was equal to 0.045 [90% CI 0.038-0.052] which is below the rigorous criterion of 0.06 and represents a close model fit in the population. These fit indices all provide evidence that the structural model is a reasonable and economical form of the phenomenon and the causal processes leading to sustainable consumption behavior in the five cultural contexts.

With respect to the structural path coefficients, it is found that Environmental Awareness was the highest direct path coefficient to the Sustainable Consumption Behavior with the score of 0.51 (). This effect was a bit larger than its standardized regression coefficient in the multiple regression (), probably because SEM corrects for measurement error for the latent variable, which gives a less attenuating estimate of the true effect. The direct effect of Green Product Knowledge was also significant as standardized coefficient was 0.42 (). Both Social Influence (+0.35, $p < 0.001$) and Eco-Label Recognition (+0.25, $p = 0.010$) were found to have a direct effect. Importantly, although this direct link was present, it was not statistically significant, meaning that once the other predictors were accounted for, the direct link between Cultural Sustainability Values and Sustainable Consumption Behavior was not. Instead, the SEM showed that primarily these cultural values indirectly predicted the outcome, both by significantly predicting Environmental Awareness and Social Influence, which in turn predicted the outcome. In the regression, this mediating mechanism accounted for why the direct path of Cultural Sustainability Values was significant while the path was not significant in the SEM, where indirect paths were also removed from the influence of culture. The total indirect effect between Cultural Sustainability Values and Sustainable Consumption Behavior was 0.30 (statistically significant), which also means that there was a significant total effect.

The SEM thus offers a more complex view of sustainable consumption causal structure. The model supports the findings that the cognitive side (awareness and knowledge) has the direct and most influential impact on behavior. Social influence is a proximal determinant, and cultural values are a more distal determinant of impact by influencing the cognitions and social

contexts that more directly elicit action. Satisfactory model fit indices and statistically significant path coefficients both reinforce the theoretical model of the study and highlight that individual and cultural level variables should be assessed in explaining green consumer behavior.

Cross-Cultural Comparison

Now, the analysis focused on the overall structural model while adding systematic differences between the five cultural groups onto this model, to quantify the moderation by cultural context. Participants were divided into two groups according to the stronger and weaker cultural sustainability values of their countries, respectively, “high-value cultures” and “low-value cultures”. As mentioned above, this classification was created using the latent variable scores of the SEM's values of cultural sustainability and grouping countries into the upper two quintiles of the covariance matrix as high-value cultures.

As a result of the cross-cultural comparisons, it was found that the differences in the results of the sustainable consumption indicators were large and consistent for all the indicators. Overall, high-value culture have higher green purchasing behavior (+25.8%) than their peers from low-value ones. The significant gap - representing more than a quarter more sustainable purchasing - highlights the very strong influence that cultural values have on consumers' purchasing decisions at the sales counter. Such 'green purchasing' is based on active choice and will surely be enhanced in cultural spheres where thinking collectively is valued and where longterm considerations count.

The difference in participation rate in recycling shows a 22.7% increase for participants from high value cultures than for those in low value. We observe a cultural difference in the level of recycling participation, which suggests that cultural factors can have an independent effect on participation even where structural factors are fairly similar, such as when municipal infrastructure and policy are already in place. This is consistent with earlier studies showing that recycling behavior is socially situated, and the values instilled in society prompt the idea of having a responsibility to recycle (Weder et al., 2025).

A higher willingness to pay a premium for eco-friendly products was 21.3% more likely in high value cultures. This economical commitment lapses to be the most personally expensive of all sustainable behaviours measured, and the differences between the two cultures are strikingly high (culturally averaged more than 20%). It indicates that resulting from more sustainable purchasing, the consumers of high value cultures are also willing to pay more for such kinds of purchasing because they are more internalised with the environmental values that it is beyond economics as well (Taufique et al., 2014).

The recognition of eco-labels differed according to cultural groups by 19.8% and the level of recognition of the certification logos was higher among consumers from high value cultures. This trend highlights how environmental attributes become more salient in cultures in which sustainability is a norm, resulting in more attention and knowledge being paid to eco-labels. Lastly, the attitude towards a sustainable lifestyle, including habits like energy saving or

reducing waste, was 18.5% higher among individuals from high value cultures, suggesting that the impact of culture spans beyond moments of purchasing to everyday habits and lifestyle.

Table 7 presents the cross-cultural comparison findings in detail.

Table 7. Cross-Cultural Comparison of Sustainable Consumption Outcomes

Sustainable Outcome	Consumption	High-Value Cultures	Low-Value Cultures	Percentage Difference
Green Purchasing Behavior		25.8% higher	Baseline	25.8%
Recycling Participation		22.7% higher	Baseline	22.7%
Willingness to Pay Premium for Eco-Products		21.3% higher	Baseline	21.3%
Eco-label Recognition		19.8% higher	Baseline	19.8%
Sustainable Lifestyle Adoption		18.5% higher	Baseline	18.5%

The observed significant and stable differences in each of the five behavioral dimensions have created significant evidence that the cultural sustainability values have a strong moderating effect on consumers' green behavior. The range of these differences (from 18.5% to 25.8%) are practically significant and place emphasis on the necessity to design sustainability interventions and activities to make them culturally relevant. Overall, the findings indicate that a single message template to drive sustainable consumption is likely not a perfect fit – rather campaigns can be optimized by tailoring messages to fit cultural strengths, and insufficient cultural aspects to suit the target audience. For example, marketing campaigns for low-value cultures might focus more on educating the public about the community and social benefits of sustainability to make up for the absence of environmental values within personal motives, as this was found to be important in the regression analysis. On the other hand, in high-value cultures, linking personal behaviour with the environment can reinforce and increase existing high levels of engagement.

Discussion

This study's results offer solid empirical evidence of the hierarchical interaction of cognitive, social and cultural factors in determining sustainable consumption within the context of various countries. Based on our results, it can be observed that the greatest determinant of sustainable consumption is environmental awareness followed by green product knowledge and social influence. The hierarchical structure indicates that interventions should be directed towards low-level cognitive factors while also acknowledging the important role social norms play as factors that amplify. The large proportion of the variance accounted for by our model (73.5%) suggests that the included determinants are relevant to sustainable consumption and the unexplained variance suggests that other factors, including perceived behavioral control, trust in green claims, and price sensitivity, should be considered for further research.

These findings have three theoretical implications. Initially, our study tests for and shows that social influence is a direct determinant of behavior, not just behavioral intentions as it traditionally has been modeled with the TPB (Tu et al., 2026). This indicates that the purported norm-based process might be even more influential in intercultural situations, especially when collectivistic norms are dominant. Secondly, the environment usually interacts with cultural sustainability values and their effects on social influence, thereby enriching the analysis of the macro-level to the individual-level link. Cultural values seem to have indirect influence and contribute to a sociological as opposed to a simple psychological approach to green consumption (Duong et al., 2024). Third, the high correlation between environmental awareness and green product knowledge () raises certain questions on construct differentiation, and implies that there may be a sequential cognitive development from the general attitude of awareness toward the cognitive environment of green product knowledge. Future theoretical research should take into account the question of whether or not awareness is a prerequisite of knowledge acquiring that is implicitly proposed in our SEM results.

Practically, our findings provide guidance for designers, policy makers and marketing and education professionals wishing to encourage sustainable consumption. The result of the dominance of the finding of the environmental awareness as the predictor indicates to continue to invest in the public education campaign, increasing awareness of environmental issues and their own relevance. Yet, the close to equal predictive ability of green product knowledge implies that mere awareness is not enough: consumers must get concrete, product-related information to turn concern into action. Therefore, eco-label standardization and education programme to help consumers understand the 'readability' and make consumers confident in eco-labels is important complement to awareness creation campaign (Ihemezie et al., 2018). The significant effect of social influence () suggests that marketing strategy should utilize the social influence through community-based social marketing, endorsement by influential people or public commitment to make the impact visible. Normative pressure may therefore be used in advertising campaign materials by emphasizing the increase of sustainable behaviors in the social landscape to increase adoption of the behavior, especially in cultures in which social conformity is high. Moreover, the cross-cultural differences we found (from 18.5% to 25.8% according to the outcomes) point to the need to culturally adapt sustainability campaigns. Whereas in low-value cultures, interventions should be based on social norms and how sustainability is beneficial to the whole community, in high-value cultures, the idea of sustainability itself and a deeper understanding of the product features would be more beneficial. Economic incentives to rectify the willingness-to-pay a premium appear also to be an important factor for policymakers, as even highly aware consumers, as shown in our study, are price sensitive.

This study has a few flaws that should be noted. First, the cross-sectional design does not allow causal inferences to be made regarding any directionality of the relationships between the predictors and the outcomes. Our SEM indicates potentially causal relationships, but longitudinal studies with repeated measures would have to be used in order to be certain of temporal precedence and to study how these relationships change over time. Second, the sample consisted of a high proportion of university graduates (61.8%) from an urban/semi-

urban area and perhaps the results are not transferable to rural or less educated population groups. We found high recognition rates as well as environmental awareness of the eco-label, which might have included overestimation of sharing such sustainable behaviours in the broader population, due to their higher education. Third, this self-report may also result in social desirability bias, for example for behaviours such as recycling and purchasing green products where there are social norms in favour of it. Future research should consider using purchase receipts or waste audits for objective estimates, rather than self-report as in this research. Fourth, high and low delineation of countries for value was based on our Cultural Sustainability Values latent variable, and the dichotomisation might not reflect the within country differences and the individual differences in value internalisation. A more nuanced approach would be to take a multilevel modeling approach and to measure culture as a continuous phenomenon at the individual level. Lastly, there is cultural diversity across the five participating countries but not all major cultural regions are represented, and our results might not apply to underrepresented other market contexts, such as markets in Africa and the Middle East.

There are research limitations and a need to extend the findings in a few directions in the future. First, there is a need for longitudinal studies in order to trace environmental awareness, social norms and consumption behavior over time, especially to see how these change when policy or market change. These would open the ground to possible research of the interaction of these variables and to possible determination of critical windows for intervention. Second, there is the need for a more systematic investigation of the role of moderators, such as age, income and urbanicity in future research. The results of our demographic segmentations indicate that younger and higher-income urban consumers are more likely to have sustainable behaviours and there is clear effect between our demographic segments and our cultural values but it needs to be explored further. Thirdly, the impact of digital media and social networks on green consumption is under-researched, and how the online social influence relates to the offline peer pressure, remains relatively unexplored. Since social media influencers have become more relevant in driving consumer preferences, it is a valuable topic to explore. Fourth, to assess the generalizability of our findings related to cultural moderation, it is vital to examine this phenomenon in comparative studies that involve developing economies and cultures other than the Western context. The cross-cultural differences identified here might be accentuated or mitigated in the contexts of varying extents of economic development, regulatory structure and media systems. Lastly, future research could study the means by which the trust of eco-labels is established because the individual components of the regression results showed that eco-label recognition, although significant, has a less robust direct impact than is desired. It would be good to have research on how to close the recognition to action gap in the context of perceived credibility, certification body reputation and consumer scepticism. These directions allow researchers to advance on this work and create models for sustainable consumption, which are more holistic and culturally responsive to guide evidence-based policy and practice.

Conclusion

The research included five different countries and went beyond the study of determinants of sustainable consumption based on environmental attitudes alone to quantify the different

contribution of culture values and social influence. We illustrated how sustainable consumption is a complex phenomenon, where Environmental awareness and Green product Knowledge play the main role but social norms and cultural context has a significant impact on the same. The total variance accounted for by the regression model was 73.5% and among the predictors, social influence was found to be a strong determinant of sustainable consumption behaviour, matching the strength of cognitive factors, which further challenged the individual-oriented models of green behaviours. The cross-cultural comparison yielded new evidence: cultural sustainable value values amplify all measured sustainable outcomes and different behaviour in the purchase of green products, with consumers from high value cultures showing up to 25.8% greater green purchasing behaviour. This confirmed that macro-level cultural context affects micro-level consumer decisions – as mediated by individual awareness and social norms. Our results, therefore, extend existing literature by empirically separating the direct and indirect ways culture can operate, showing that the ultimate impact of culture occurs in this case through the cognitive and social pathway, and not directly through its quasi-independent force. These findings have significant implications for practice: these awareness raising campaigns, while important, are not enough; they are also accompanied by a strategy to foster social norms, a product-specific knowledge strategy, and everything should be culturally tailored to be as effective as possible. The implications of future research are longitudinal design to set causal order, studying digital social influences, and the scope of research to other regions outside the scope of interest to date; and so, further investigation into how we can support responsible consumption in a more and more connected but culturally diverse world.

References

- Adlinda, S., Brindha, G., Reshma, M., et al. (2026). The mediating role of conscious consumerism in shaping sustainable consumption intentions: Evidence from coimbatore district, india. *Frontiers in Sustainability*.
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*.
- Bamberg, S., & Möser, G. (2007). Twenty years after hines, hungerford, and tomara: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*.
- Chan, R., & Lau, L. (2001). Explaining green purchasing behavior: A cross-cultural study on american and chinese consumers. *Journal of International Consumer Marketing*.
- Diwanji, V., Baines, A., Bauer, F., et al. (2024). Green consumerism: A cross-cultural linguistic and sentiment analysis of sustainable consumption discourse on twitter (x). *Journal of Current Issues & Research in Advertising*.
- Duong, C., Le, T., Lee, E., et al. (2024). How cultural values integrate with each other to trigger sustainable consumption: A cross-culture study. *Asia Pacific Journal of Marketing and Logistics*.

- Goswami, R., Chatterjee, S., et al. (2025). Sustainable consumption in the east: Cross-cultural variation of antecedents of green purchase intention based on religiosity, spirituality and values. *International Journal of Consumer Studies*.
- Ihemezie, E., Ukwuaba, I., & Nnaji, A. (2018). Impact of 'green' product label standards on consumer behaviour: A systematic review analysis. *International Journal of Academic Research in Business and Social Sciences*.
- Mai, N. T. T. (2019). An investigation into the relationship between materialism and green purchase behavior in vietnam and taiwan. *Journal of Economics and Development*.
- Menaria, M. (2026). *Cross culture marketing*. books.google.com.
- Minton, E., Spielmann, N., Kahle, L., & Kim, C. (2018). The subjective norms of sustainable consumption: A cross-cultural exploration. *Journal of Business Research*.
- Nguyen, T., Dadzie, C., Chaudhuri, H., et al. (2019). Self-control and sustainability consumption: Findings from a cross cultural study. *Journal of International Consumer Marketing*.
- Rahman, S. U., Chwialkowska, A., Hussain, N., et al. (2023). Cross-cultural perspective on sustainable consumption: Implications for consumer motivations and promotion. *Environment, Development and Sustainability*.
- Rahman, S., & Luomala, H. (2021). Demystifying horizontal/vertical cultural difference in green consumption: A cross-cultural comparative study. *Journal of International Consumer Marketing*.
- Schreiber, J., Nora, A., Stage, F., et al. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*.
- Sihombing, S. (2025). *The transformation of indonesian consumers: Values shaping behavior*. books.google.com.
- Sivapalan, A., Jebarajakirthy, C., Maseeh, H., et al. (2026). Green consumption across borders: A hybrid meta-analytic investigation exploring cultural values, human development and internet access. *European Journal of Marketing*.
- Taufique, K., Siwar, C., Talib, B., Sarah, F., et al. (2014). Synthesis of constructs for modeling consumers' understanding and perception of eco-labels. *Sustainability*.
- Tu, C., Jin, Y., Xie, S., & Tu, C. (2026). Cross-cultural and gender-based study of green consumption behavior among taiwanese and thai university students: A perspective based on the TPB. *International Journal of Sustainability in Higher Education*.
- Weder, F., Golob, U., & Podnar, K. (2025). Sustainable consumption in context: A cross-cultural study of social representations. *Sustainability*.