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AN EMPIRICAL ANALYSIS OF HOFSTEDE'S CULTURAL DIMENSIONS AND THE THEORY OF PLANNED BEHAVIOR IN SHAPING CONSUMERS' PURCHASING BEHAVIOR: THE MODERATING ROLE OF AWARENESS OF CONSEQUENCES.

S. Shah Salman[*1], Dr. Tariq Jalees[2]

[*1]*PhD scholar, Asst. Prof, Faculty of Business and Management Studies, Nazeer Hussain University, Karachi, Pakistan,*
[2]*Professor, Managing Editor, PhD Coordinator, GSSE, KIET University, Karachi, Pakistan*

[*1]shah.salman@nhu.edu.pk, [2]tariquej2004@yahoo.com

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Corresponding Author: *
S. Shah Salman

Abstract

In light of increasing sustainability challenges, this study investigates Hofstede's cultural dimensions and the Theory of Planned Behavior (TPB) in relation to the explanation of consumers' purchasing behavior, with a strong emphasis on the moderating role of awareness of consequences. Based on TPB foundations, the influence of attitude and subjective norms are examined, while cultural dimensions of individualism/collectivism and Restraint vs. Indulgence are added to the equation that ultimately explains intention and behavior toward a green purchase. Within a quantitative research design, data were collected from 367 consumers in Pakistan, which provided a basis of analysis through additional data analysis of Partial Least Squares Structural Equation Modeling (PLS-SEM) techniques. Results indicated that the measurement model was very reliable, provided evidence for convergent validity and discriminant validity, and explanatory power of results was found to be satisfactory (R^2 = .491 behavior; R^2 = .409 intention). The structural model findings stated that attitude, and subjective norms, and Individualism vs. Collectivism significantly predicted both green purchase intention and behavior. Restraint vs. Indulgence revealed a negative significant effect in intention but no significant direct effect on the behavior. Green purchase intention was confirmed as a mediator between cognitive antecedents and cultural antecedents and was the causal link to actual purchasing behavior. Importantly, awareness of consequences was found to significantly moderate the intention – behavior relationship and enhance green purchase intentions into green consumption actions and begin to address the well reported intention and behavior gap. The research advances Theory of Planned Behavior through its examination of cultural and cognitive boundary conditions, providing a fuller understanding of the TPB for sustainable consumption research. Practically, the research adds emphasis to both culturally relevant marketing strategies and interventions that target awareness of consequences to encourage pro-environmental consumer behavior.

Introduction:

As there is an increase in consciousness of environmental issues and sustainability, research investigating the factors that influence consumer buying behavior has increased. Ecological degradation is a significant problem caused by worldwide consumption patterns, and therefore understanding psychological, social, and cultural factors that impact people's decision making in choosing a sustainability product is justified (Li et al., 2025). In traditional economic conceptions, decision-making is based mainly on rational models or cost–benefit analyses; whereas conceptions of behavior rooted in current theories of behavior emphasize the role of attitudes, norms, and cultural orientations in steering consumer behavior (Uikey et al., 2025; Paul et al., 2016; Ajzen, 1991). Of the contemporary models, the Theory of Planned Behavior (TPB) remains the most utilized in consumer studies; it describes the roles of attitude, subjective norms, and perceived behavioral control to explain consumers' intentions and behavior. That said, scholars contend that some dimensions of culture, such as individualism-collectivism versus restraint-indulgence, provide an added layer to explaining differences in consumer preferences in societies (Hofstede, 2024; Hofstede, 2011; Hofstede, 2001). Additionally, mediating constructs related to purchase intention and moderating factors such as consequences bring foresight of pro-environmental action as the cognitive element of individuals' cognition and behavior (Chen et al., 2025).

Despite the increase in the number of studies on green consumer behavior, many have focused on individual attitudes and subjective norms, without consideration of cultural values and moral awareness (Dovash et al., 2025). Consumers may believe they have a positive attitude toward eco-friendly products but will not purchase after expressing good intentions (Mabaso et al., 2025). Moreover, cultural influences, such as collectivism or indulgent lifestyles, impact consumer behavior in meaningful but often unnoticed ways, but have not been well examined in combined models. Furthermore, the previous literature is deficient in consideration of awareness of consequences, which is necessary to translate pro-environmental attitudes into behavior. Positive attitudes and intentions for purchasing eco-friendly products may not matter without responsibility for the environmental consequences of consumption (Ligarda-Samanez et al., 2025). This rationale provides justification for this work to explore how individual level cognitions and cultural orientations influence consumer purchasing behavior, potentially mediated by purchase intention and moderated, by awareness of consequences.The majority of the previous inquiry testing the TPB has concentrated solely on either attitudinal or normative predictors of consumer behavior but not together, and has missed out the cultural aspect as variances (Nguyen et al., 2025; Salman & Jalees, 2025). The construct of green purchase intention has also been accepted but it remains to be confirmed for design purposes cross-culturally (Balabanis et al., 2024). The moderating effect of awareness of consequence has not been analyzed extensively despite evidence that it may enhance or weaken the relationship between purchase intention and consumer behavior (Joo & Hwang, 2023; Stern, 2000). To this end this study provides a design-related and educative academic purpose via a theory study that attempts to fill three major gaps: The principal aim of the present research is to investigate the predictors and consequences of green consumer purchasing behavior through the integration of attitudinal, normative, and cultural predictors. The study sets out to. Investigate how attitude, subjective norms, individualism vs. collectivism, restraint vs. indulgence will exert a meaningful impact on green purchase intention and consumer purchasing behavior. Establish a mediating relationship between green purchase intention and independent variables on consumer purchasing behavior. Explore the moderating effect of awareness of consequences and green purchase intention with consumer purchasing behavior. How do attitude, subjective norms, and cultural dimensions influence consumer purchase behavior?

To what extent does green purchase intention mediate the relationship between independent variables and purchasing behavior? Does

awareness of consequences strengthen the relationship between purchase intention and consumer purchasing behavior? This research contributes to knowledge both theoretically and practically. Theoretically, it builds on TPB by adding Hofstede's cultural dimensions and awareness of consequences to obtain a more nuanced understanding of consumer green behavior. Additionally, it provides a more comprehensive understanding of the mediating and moderating mechanisms of how the cognitive antecedents relate to behavioral outcomes (Dovash et al., 2025). Practically, this study offers insights for policy-makers, marketers, and advocates for sustainability to work together and develop culturally aware campaigns that address changing attitudes and individuals' awareness of the environmental outcomes of their consuming behaviors. The conceptual framework proposed in this study draws significantly from Ajzen's Theory of Planned Behavior (TPB), which was first proposed in 1991. TPB has been well accepted in research on consumer behavior, as it pertains to ethical, sustainable, and green consumption (Uikey et al., 2025; Naini & Reddy, 2025; Yadav & Pathak, 2017; Paul et al., 2016). The theory posits that attitude, subjective norms, and perceived behavioral control are the most significant antecedents of behavioral intention, which leads to behavior. In TPB, attitude represents the person's positive or negative evaluation of the behavior, while subjective norms are the person's perception of social pressure to engage in that behavior or not. Therefore, intention is a product of both internal cognitions and external social influences, and is the next immediate antecedent to behavior (Ajzen, 2015).

The current study extends theory of planned behavior (TPB) by utilizing Hofstede's cultural dimensions to be additional antecedents of green purchase intention and consumer purchasing behavior. Hofstede's cultural dimensions framework illustrates and elaborates its influence on an individual's cognitive and decision-making processes (Hofstede, 2011). Of the six cultural dimensions, two dimensions particularly relevant for the consumer purchasing context are individualism vs collectivism and restraint vs indulgence. Individualism vs collectivism refers to differences among societies based on whether individuals would make decisions based on either their personal interests or the welfare of the group (Hofstede, 2011). In a collectivist culture, an individual's decisions may be affected by the social approval of the group (Nguyen et al., 2025), which may strengthen the influence of subjective norms to intentions. The orientation of individualism may stimulate independent decision making, thus a stronger association between personal attitudes and purchasing behavior as a result.

The behavioral dimension of restraint versus indulgence characterizes the degree to which a society controls satisfaction of desires. Indulgent societies allow for the free expression of wants, desires and impulsive behavior, while restrained cultures have norm-based regulations that control gratification and emphasize self-discipline (Hofstede, 2024; Hofstede, 2011; Hofstede, 2001). This behavioral dimension is critical to green purchasing behaviors because indulgent consumers tend to focus on hedonic enjoyment while consuming products or services in seemingly environmentally degrading ways, while restrained consumers may be better at aligning their consumption with their long-term sustainability goals. Integrating this set of cultural variables, specifically, restraint versus indulgence, into the theory of planned behavior, the model incorporates the cross-cultural variation in green purchasing behavior that has been under-explored in the literature (Chen et al., 2025; Salman & Jalees, 2025).

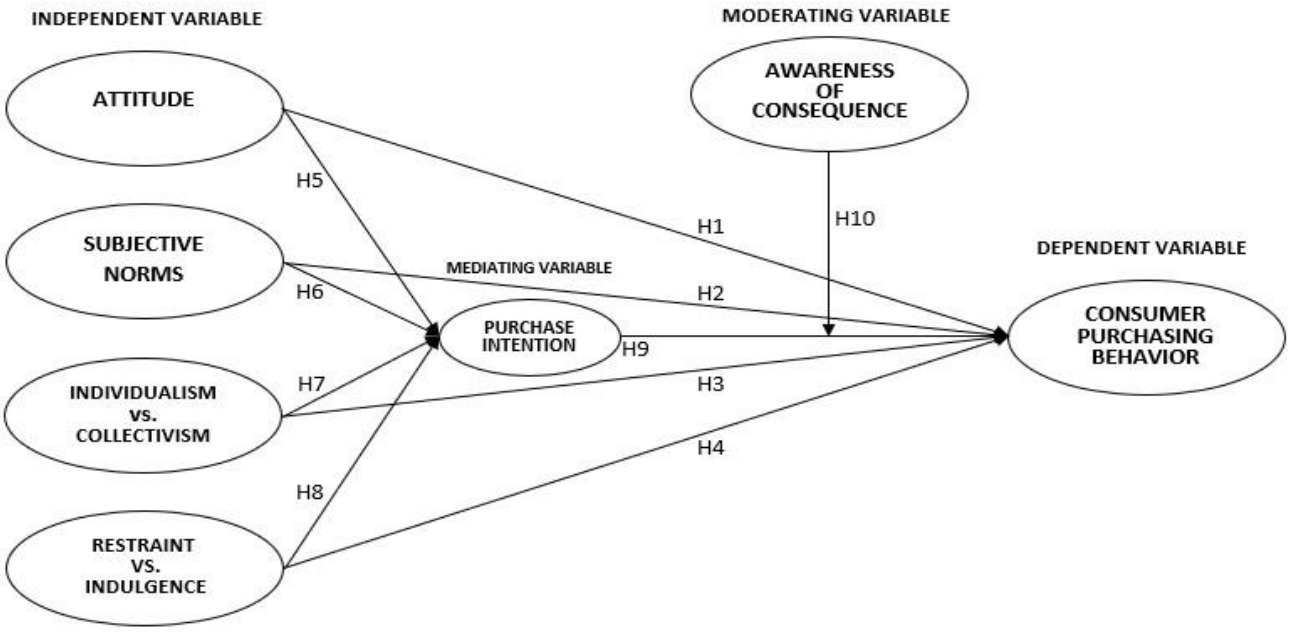
The other important component of the planned behavior theory model is green purchase intention, which can act as a mediating variable. Intention serves as the linkage between antecedents, specifically, attitudes, norms, and consumer cultural values and actual behavior at the point of purchase. Again, while positive attitudes and norms can help shape consumer behavior, they do not guarantee behavior outcomes. Thus, adding purchase intention to the model acknowledges this important distinction and is justified by empirical studies that have found purchase intention partially mediates the relationships between psychological and cultural

antecedents and consumer purchasing behavior (Balabanis et al., 2024; Dovash et al., 2025).

To improve the explanatory power of the model, knowing the consequences (AC) will be introduced as a moderating variable. AC derives from Schwartz's Norm Activation Theory and was later adapted in pro-environmental behavior research (Schwartz, 1977). AC defines a person's awareness of possible negative consequences when acting irresponsibly, and pro-social outcomes. In the consumer behavior context, when a consumer is aware of the consequences of unsustainable consumption patterns, they will be more likely to act on good intentions (Ligarda-Samanez et al., 2025). In contrast, being unaware of the consequences of sustainable consumption reduces the O–B relationship and can lead to an attitude behavior gap (Chen et al., 2025). AC as a moderator will help the current study understand conditional dynamics affecting whether intentions lead to actual behavior.

This integrated theoretical framework brings together TPB, Hofstede's cultural dimensions and awareness of consequences into one framework to provide an extensive explanation of green consumer purchasing behavior. Attitude, subjective norms, and cultural values are the independent variables that influence green purchase intention and behavior. Green purchase intention acts as a mediator that enables consumers to enact cognition and cultural predisposition, and awareness of consequences acts as a moderator that subsequently strengthens or weakens the path from intention to behavior. This multidimensional framework will expand the theoretical contribution to consumer behavior in the sustainability context, and offer practical contributions for marketers and policymakers interested in promoting environmentally responsible consumption.

Y 2: Model 1 (With Hypotheses)



Literature review:

An attitude refers to a positive or negative valance evaluation of some behavior (Ajzen, 1991). With regard to sustainable consumption, attitudes reflect consumers' beliefs about the potential benefits of environmentally friendly purchasing

behaviors. A number of studies have demonstrated that consumers with positive environmental attitudes show greater engagement with eco-friendly purchasing behaviors (Uikey et al., 2025; Naini & Reddy, 2025; Yadav & Pathak, 2017; Paul et al., 2016). A prior study also determined that consumers who view green products as friendlier to their health and society are more likely to purchase them (Guo, 2024). Likewise, an earlier research study validated the strong role of environmental attitude in predicting pro-environmental behavior in the hospitality sector (Dovash et al., 2025). However, some have previously established the existence of an attitude–behavior gap where positive environmental attitudes do not predict pro-environmental behaviors due to situational barriers (Mabaso et al., 2025; Salman & Jalees, 2025). Drawing from these previous studies, the following hypothesis is proposed:

H1 – Attitude has a positive effect on green purchase behavior.

Subjective norms identify social pressures individuals experience from family, peers, and society toward adopting various behaviors (Ajzen, 2015). Subjective norms have significant influence on consumers' engagement in sustainable behavior related to pro-environmental consumption. According to a previous research, collectivist culture situates the subjective norm process within the premise of green purchasing (Balabanis et al., 2024; Salman & Jalees, 2025). Researchers posit that normative influence is essential to predict and explain consumer behavior in line with pro-environmental attitudes (Chen et al., 2025). They reported that strong social approval legitimized behavior which aligned with pro-environmental consumption. Consistent with the theoretical above, H2 - Subjective norms will have a positive effect on green purchase behavior.

H2 - Subjective Norms has a positive effect on green purchase behavior.

Cultural orientation is an important factor in shaping consumer choice. In collectivism cultures, group harmony and welfare are prioritized and consumers may act sustainably in accord with group social norms (Nguyen et al., 2025). In contrast, individualism cultures focus on the value of individual autonomy and associated green consumption behavior may be motivated by self-expressing as an identity (Silva et al., 2024; Christoff, 2020). Existing empirical research supports the notion that collectivist values stimulated socially responsible purchasing behavior while individualistic orientations shaped consumption behavior through self-expressive motives (Dalal et al., 2025; Salman & Jalees, 2025). Therefore,

H3 - Individualism vs. collectivism has a significant positive effect on green purchase behavior.

The cultural dimension of restraint versus indulgence provides insight into differences in consumption styles. In an indulgent culture, the notion of freedom and pleasure-seeking may cause some consumers to want to make excess purchases that are impulsive and possibly unsustainable consumption (Hofstede, 2011). However, a culture of restraint focuses on discipline, restraint, and prioritizing long-term value, which may lead consumers to consume responsibly. Research studies found that restrained consumers showed a stronger tendency to purchase with the sustainability of the purchase as a framework to buy within, while indulgent consumers were more hedonic in their motivations (Matharu et al., 2024). Researchers discovered that cultural restraint increased eco-conscious behaviors within the context of Asian markets (Ligarda-Samanez et al., 2025; Salman & Jalees, 2025). As such,

H4 – Restraint versus indulgence has a significant effect on green purchase behavior.

Green purchase intention refers to the consumer's inclination to adopt sustainable consumption behaviors. The Theory of Planned Behavior claims that positive attitudes help to strengthen the intention to behave (Ajzen, 1991). Studies have provided empirical support for this claim as previous research found that attitudes are a significant predictor of purchasing intentions for environmentally-friendly products (Uikey et al., 2025). Likewise, an earlier research reported that positive environmental attitudes were a direct predictor of green purchasing intentions in emerging economies (Naini & Reddy, 2025).

Furthermore, researchers determined that attitude is a significant predictor of pro-environmental intentions in the tourism sector (Dovash et al., 2025; Salman & Jalees, 2025). Therefore,

H5 - Attitude is positively related to green purchase intention.

In addition, social norms have a significant influence on determining consumers' intentions. Specifically, if people believe that important social groups expect them to engage in green behaviors, they may be more likely to have purchase intention. For instance, an earlier research found that consumers' subjective norms were significantly related to their intention to consume green in fashion contexts (Balabanis et al., 2024; Salman & Jalees, 2025). Likewise, research scholars argue that normative pressure drives sustainable consumption in collectivist cultures, suggesting that these consumer normative variables should be considered (Chen et al., 2025).

H6 - Subjective norms positively influence green purchase intention.

Consumers' readiness to commit to green purchasing is influenced heavily by cultural values. For instance, consumers in collectivist contexts tend to formulate their purchase intentions around in-group expectations (Nguyen et al., 2025), whereas consumer intentions for pro-environmental purchasing may stem from identity expression and personal values in individualistic cultures (Yoon et al., 2022). Numerous empirical studies have shown that collectivist orientation affect intentions toward pro-environmentalism (Dalal et al., 2025; Salman & Jalees, 2025). For this reason,

H7 – Individualism versus collectivism has a significant positive effect on green purchase intention.

Cultures with a restraint orientation prompt consumers to evaluate future ecological consequences prior to purchasing products. In contrast, an indulgent culture promotes hedonic consumption and may reduce consideration of sustainability (Hofstede, 2011; Yoon et al., 2022). Prior research studies confirmed that restrained vs. indulgent consumers in China exhibited higher green purchase intentions than indulgent consumers (Ligarda-Samanez et al., 2025; Salman & Jalees, 2025).Therefore, H8 - Restraint versus indulgence will have a positive impact on green purchase intention.

H8 – Restraint versus Indulgence has a significant positive effect on green purchase intention.

The intention to purchase is widely recognized under the theory of planned behavior (TPB) as the most proximal predictor of behavior (Ajzen, 2015). Numerous studies provide evidence for the connection in the sustainability context. Research studies showed that green intentions directly translate into actual purchasing behavior (Uikey et al., 2025). Studies also supported the predictive relationship of intention in green consumption in tourism contexts (Dovash et al., 2025; Salman & Jalees, 2025). Nonetheless, scholars also commented on the existence of a gap between intention and behavior based on situational impediments (Mabaso et al., 2025). Therefore,

H9 – Green purchase intention has a positive effect on green purchase behavior.

Understanding the consequences (UC) helps explain why intentions sometimes do not translate into action. Informed by Norm Activation Theory (Schwartz, 1977), UC demonstrates peoples' recognition of how inaction can have consequences associated with their decision making process. Research shows that when consumers are mindful of the environmental consequences of their choices, they are more likely to translate intentions into behavior (Dalal et al., 2025). Research study also showed that UC significantly strengthens the intention–behavior pathway. The research also emphasized that UC helps individuals to bridge the intention–behavior gap in green consumption (Ligarda-Samanez et al., 2025; Salman & Jalees, 2025).

H10 – Awareness of consequences positively moderates the relationship between green purchase intention and green purchase behavior.

Methodology

This study aims to apply a positivist philosophical approach to examine relationships between subjective norms, perceived behavioral control, long-term orientation, uncertainty avoidance, and consumer purchase behavior. Positivism posits

that reality can be objectively observed and therefore produce empirical data on the phenomena of the real world. As a result, positivist studies are concerned with hypothesis testing, statistical testing, and using measurable variables to make causal inferences (Rubab & Hussain, 2025; Esmaelnezhad et al., 2023). According to this perspective, it supports the intent of the study's quantitative examination of psychological and cultural constructs on purchase intention and decision-making for the study participants.

Within the domain of positivist inquiry, it is generally posited that the researcher will keep a distance from the subject in a nonbiased manner and thus will allow for results to emerge from the data itself. The importance of quantitative methods, pre-structured instruments, and procedures capable of being replicated is central to the positivist paradigm (Srouji et al., 2025; Bell et al., 2022). This study utilizes the data collection through structured questionnaires, from consumers, and statistically examines the findings based on predetermined hypotheses. While not looking to interpret meaning from the subjective view, the observations are of measurable patterns that reflect trends of generalizable consumer behavior within urban populations in Pakistan. Furthermore, the positivist stance works perfectly for the construct's predictive focus of the Theory of Planned Behavior (TPB) and Hofstede's cultural dimensions, as they corroboratively rely on objective verification and quantification of psychological constructs (Lyeonov et al., 2025). By using the above mentioned constructs, and operationalizing them through quantifiable items within this study (e.g., subjective norm's, perceived behavioral control, cultural values), there is also a methodology that is consistent with the attributes of a positivistic stance. In short, the model of positivism gives credibility, replicability, and pertinence to the study while stressing an objective reality, and a measurable relationship among variables.

Research Approach

This research adopts a deductive research method, which involves hypothesizing from established theories and testing those hypotheses with empirical data. In this case, the deductive reasoning begins with general premises, specifically the Theory of Planned Behavior (TPB) and Hofstede's Cultural Dimensions Theory and attempts to determine whether the assumptions of these theories hold true in specific contexts (Babu et al., 2024; Saunders, 2014). This applies to this research, which is investigating the role of subjective norms, perceived behavioral control, long-term orientation, and uncertainty avoidance on consumer purchasing decisions, with the variables of purchasing intention serving as the mediator, and awareness of consequence as moderator. Previous research studies suggested that deductive methodologies are most appropriate when testing an explicitly identifiable relationship, with a pre-structured structural design in mind (Rubab & Hussain, 2025; Esmaelnezhad et al., 2023). Similar to a mathematical investigation, deductive approaches allow researchers to develop specific hypotheses based on accepted frameworks across disciplines, and then to collect and analyze data in order to verify the frameworks in explanation. This research presents ten hypotheses related to direct, mediating, and moderating relationships among the variables. The purpose of the hypothesis is to accept or reject our hypotheses according to the data related to the variables. Deductive approaches also underpin the positivist approach taken in this research by focusing on objectivity, generalizability, and statistical verification (Bonfanti et al., 2025; Creswell & Creswell, 2017). The processes of research commence with a construct, process to the operationalization of constructs, and conclude with the testing of a hypothetical statement (hypothesis). This serves to correspond with the researcher's philosophical perspective, methodological framework, and overall aim of the research. Ultimately, this supports a careful, systematic, and repeatable investigation of the causal pathways that shape consumer purchase behavior in a specific cultural context.This research uses a quantitative research design to examine the theorized links between psychological and cultural constructs and consumer purchase decisions. Quantitative research is characterized by (1) objectivity; (2)

numerical measurement; and (3) statistical procedures to study relationships among variables (Bryman, 2016; Sekaran, 2016; Saunders, 2014). Because this study is grounded on established theories, the Theory of Planned Behavior (TPB) and Hofstede's Cultural Dimensions theory, a quantitative approach is useful for gathering and analyzing numerical data to confirm or disconfirm established hypotheses.

Quantitative approaches are effective when research studies seek to examine causal or correlational relationships among variables. This study will utilize questionnaires with closed-ended response items to solicit information from participants on the constructs of subjective norms, perceived behavioral control, long-term orientation, uncertainty avoidance, purchase intention, and consumer purchase decision. Once completed, data analysis will take place, with statistical techniques using software such as SmartPLS to test the strength and significance of the proposed direct, mediating and moderating relationships (Rubab & Hussain, 2025; Esmaelnezhad et al., 2023). In addition, the quantitative strategy does align with the positivist philosophy and deductive approach in this research, while enabling large data collection to promote results generalizability and researcher bias reduction. Researchers argue that quantitative designs are particularly well-suited where the central aim of the study is to test theory, prediction and statistical validation (Sekaran, 2016; Saunders, 2014). By systematically following a structured and replicable process, the quantitative strategy fosters confidence in the trustworthiness and validity of findings, in which the research findings are based on measurable evidence.

Research Design

The research design for this study employs a survey methodology, which is common in the social sciences for collecting data from a larger and diverse population. Surveys allow researchers to systematically collect responses that are standardized to test hypotheses generated from their theoretical models (Bonfanti et al., 2025; Creswell & Creswell, 2017). Since the purpose of the study is to test the relationships between subjective norms, perceived behavioral control, long-term orientation, uncertainty avoidance, purchase intention, and consumer purchase decision, a survey is a systematic way to collect the relevant data from a sample that has been defined.The researcher will use structured questionnaires as the key method of data collection. The questionnaires will feature closed-ended questions that use a five-point Likert scale to measure the participants' level of attitudes, beliefs, and behavioral intentions. The use of standardized items increases reliability and consistency of the data, but also permits statistical analysis, such as structural equation modeling (SEM), using SmartPLS (Rubab & Hussain, 2025; Esmaelnezhad et al., 2023). In addition, survey designs allow the researcher to examine multiple variables simultaneously, which can be useful for complex models including mediation and moderation effects.

As well as methodological rigor, the survey design matches the positivist philosophy and deductive approach of this study. Specifically, survey research provides the possibility for objective measurement of defined constructs and the opportunity to test theoretical predictions with empirical data. Researchers endorse the appropriateness of survey research for studies intended to generate generalizable findings within a broader population, particularly when studies into making recommendations for policy or marketing strategy (Groves et al, 2011). In this sense, a survey design generates potential for useful findings which give the study the potential to develop contributions relating to both theoretical and practical implications. The target population for this research consists of consumers living in five major cities of Pakistan which includes Karachi, Lahore, Islamabad, Quetta, and Faisalabad. These urban areas have been selected because of their diverse populations, metropolitan cities with high consumer activity, and several socio-economic groups. As posited in earlier research studies, the cities are known to be cultural and economic centers, indicating suitability for the investigation of behavioral patterns in consumption (Lyeonov et al., 2025). Their population diversity will contribute towards the

generalizability and relevance of the research findings to the consumer market in Pakistan.

This study uses, as its main sampling method, quota sampling for representative sampling across the five selected cities: Karachi, Lahore, Islamabad, Quetta, and Faisalabad. Quota sampling is a non-probability sampling method in which researchers create mutually exclusive subgroups and choose participants according to an allocated quota that represents a key characteristic of the population, such as city, gender, age or occupation (Hafsa et al., 2024; Anieting & Mosugu, 2017). Quota sampling is particularly beneficial in aiding diversity and balance in respondents' answers while maintaining practicality in data collection given time and resource limitations.

Quota sampling is especially useful when working with urban populations, as it is often impractical to obtain a perfectly randomized sample given the time, cost and logistics of doing so. An earlier research study demonstrated that note that in socio-cultural contexts such as Pakistan, the researcher can exert sufficient control over demographics without losing the heterogeneity of the sampling method (Hafsa et al., 2024; Anieting & Mosugu, 2017). Since the study intends to compare respondents' answers across a variety of cultural and behavioral dimensions the use of quota sampling provides efficiency and relevancy to the process of data collection.

In addition, in order to match the study's positivist and deductive position, the use of a quota sampling method will afford the researcher systematic data collection within the defined boundaries that have been specified. By intentionally sampling specific demographic groups in each city, this method establishes a level of representation that assures the researcher no one group is excessively weighting the findings (Hafsa et al., 2024; Anieting & Mosugu, 2017). These parameters will assist the study meet its aims in constructing empirical-based insights into consumer decision-making behavior across urban contexts in Pakistan.

Sample size determination follows the established guidelines of at least ten respondents per observed indicator when conducting structural equation modeling (Hair, 2014). Since the suggested model is relatively complex, with several independent variables, one mediator, and one moderator, we estimate that the number of indicators will exceed 30. This leads to the minimum required sample size of about 300 respondents, providing sufficient statistical power for testing the model and reliability of the results. Similarly, earlier pertinent studies have also suggested SEM studies examine sample sizes that exceed 300 respondents, especially for mediation and moderation analysis (Rubab & Hussain, 2025; Esmaelnezhad et al., 2023). An appropriate sample size improves estimation of the parameters and generalizability based on the answers that will be collected from a diversified demographic. Due to the recommendations above, this study aims to collect responses from at least 350 participants guaranteeing suitable representation from those in the 5 targeted cities.

Measurement model:

The validity and reliability of the measurement model was assessed comprehensively using three criteria of psychometric soundness: internal consistency reliability, convergent validity, and discriminant validity. Collectively, these properties demonstrate the rigor of the constructs and support conducting structural analysis on the model. Internal consistency reliability was first assessed through Cronbach's Alpha, which ranged from 0.739 for restraint vs. indulgence to 0.838 for green purchase behavior, all values exceeding the widely accepted cut-off of 0.70 (Umpusinga & Purwoko, 2025; Nunnally & Bernstein, 1994), thereby confirming that the items were internally consistent and appropriately reflected their respective latent constructs. This finding was reinforced by rho_A values, which provide a more consistent estimation of reliability, ranging from 0.750 to 0.850, again surpassing the minimum recommended level of 0.70 (Kumar et al., 2025), thus strengthening the reliability claims. Composite Reliability (CR), which accounts for the different loadings of indicators, yielded values between 0.853 and 0.910, all comfortably above the suggested threshold of 0.70 (Hair, 2014), indicating that the constructs were free from

measurement error to a considerable degree and were stable across repeated measurements. Following this, we assessed convergent validity using Average Variance Extracted (AVE), which assesses the amount of variance captured by a construct in relation to the amount of variance due to measurement error. The AVE values varied enhancing the results, ranking from 0.584 for awareness of consequence to 0.834 for green purchase intention and all followed the indicator of being above 0.50 (Fornell & Larcker, 1981). These values confirm that the constructs explained more than half of the variance in their indicators, and sufficiently captured the underlying theoretical dimensions.

The evaluation of the discriminant validity, which demonstrates the conceptual uniqueness of constructs, was conducted using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio of correlations (HTMT). The Fornell-Larcker evaluation indicated that the square roots of AVE values (reported along the diagonal) were greater than inter-construct correlations, thus indicating discriminant validity; the square root of AVE for Attitude (0.867) was greater than its Attitude correlation with Subjective Norms (0.587) and Awareness of Consequence (0.682), this demonstrated Attitude to be more closely associated with its measures than other constructs (Fornell & Larcker, 1981). The HTMT values lend support to this; all HTMT values are below the conservative cutoff of 0.85 (Lim, 2025; Henseler et al., 2015): Attitude–Subjective Norms (0.705), Awareness of Consequence–Green Purchase Behavior (0.749), Awareness of Consequence–Green Purchase Intention (0.400); all supporting the conclusion that the constructs measure distinct empirical concepts and multicollinearity was not present within the constructs.

In addition to measurements of reliability and validity, the coefficient of determination (R^2), to measure model explanatory power, was assessed. Green purchase behavior had an R^2 value of 0.491 (adjusted = 0.488), and green purchase intention had an R^2 value of 0.409 (adjusted = 0.407). In line with Lim's (2025) research recommendations, these values denote a moderate to large amount of explanatory power, indicating that approximately half of the variance in green purchase behavior and in excess of 40% of the variance in green purchase intention were explained by the predictors in the model. This illustrates the theoretical relevance and empirical strength of the measurement framework. In a cumulative sense, the results indicate that the measurement model met the basic benchmark of internal consistency reliability, convergent validity, and discriminant validity, and it also had strong explanatory power, providing a solid, credible, and empirically justified basis for moving forward to analyze the structural model and hypothesized relationships in the following analysis stages.

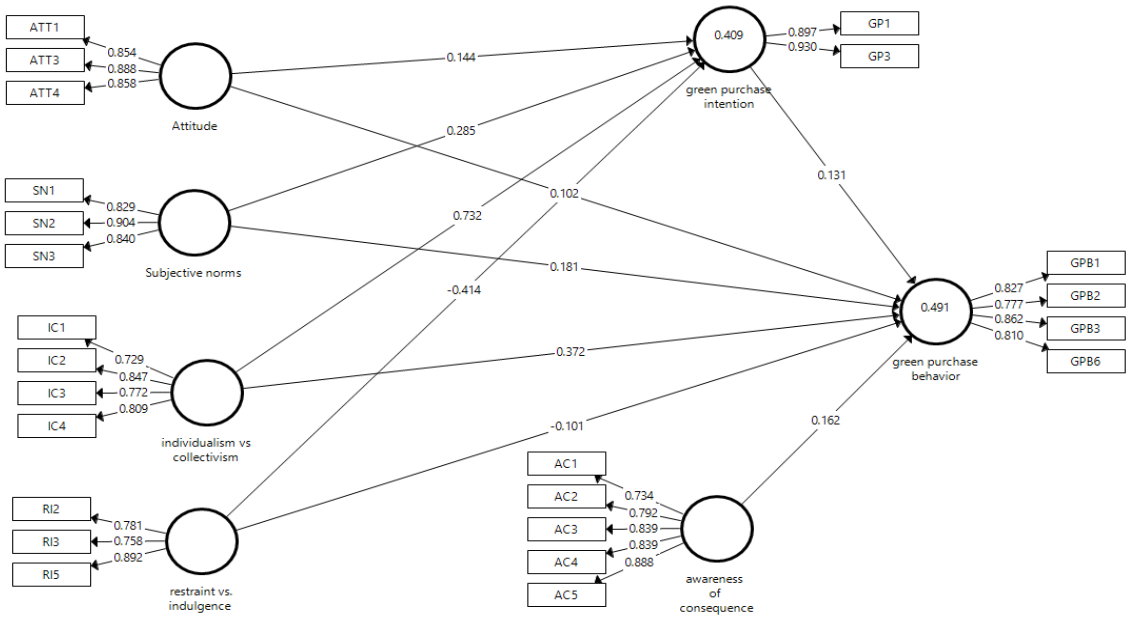


Figure 1: Factor loadings

Table 1: Reliability Table

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Attitude	0.835	0.838	0.901	0.751
Subjective norms	0.821	0.830	0.893	0.737
awareness of consequence	0.816	0.828	0.874	0.584
green purchase behavior	0.838	0.850	0.891	0.672
green purchase intention	0.803	0.822	0.910	0.834
individualism vs collectivism	0.798	0.804	0.869	0.624
restraint vs. indulgence	0.739	0.750	0.853	0.660

Table 2: Fornell-Larcker Criterion

	Attitude	Subjective norms	awareness _of _consequence_	green purchase behavior	green purchase intention	individualism vs collectivism	restraint vs. indulgence
Attitude	0.867						
Subjective norms	0.587	0.858					
awareness _of _consequence_	0.682	0.584	0.764				
green purchase behavior	0.530	0.537	0.629	0.820			
green purchase intention	0.490	0.519	0.837	0.563	0.913		

individualism vs collectivism	0.534	0.502	0.659	0.599	0.552	0.790	
restraint vs. indulgence	0.510	0.524	0.620	0.572	0.514	0.964	0.813

Table 3: Heterotrait-Monotrait Ratio (HTMT)

	Attitude	Subjective norms	awareness _of _consequence_	green purchase behavior	green purchase intention	individualism vs collectivism	restraint vs. indulgence
Attitude							
Subjective norms	0.705						
awareness _of _consequence_	0.816	0.706					
green purchase behavior	0.622	0.638	0.749				
green purchase intention	0.590	0.636	0.400	0.677			
individualism vs collectivism	0.650	0.623	0.818	0.723	0.684		
restraint vs. indulgence	0.646	0.674	0.802	0.717	0.664	0.811	

Table 4: R^2 Table

	R Square	R Square Adjusted
green purchase behavior	0.491	0.488
green purchase intention	0.409	0.407

STRUCTURAL MODEL

The structural model was assessed for both direct and moderating relations of the constructs by following established guidelines for PLS-SEM (Hair, 2014). Table 5 reports the displayed the direct and indirect paths, as well as the path coefficients (β), t-statistics, and p-values. In regard to the observed direct paths, Attitude had a significant positive impact on green purchase behavior (β = 0.116, t = 2.711, p = 0.007), which provided initial support for H1, as expected based on the Theory of Planned Behavior (Ajzen, 1991). Subjective Norms also emerged as a significant predictor of green purchase behavior (β = 0.169, t = 3.968, p < 0.001), thereby supporting H2, and providing further evidence of the influence of social pressure to consume pro-environmentally in the same vein of the previous research (Naini & Reddy, 2025; Yadav & Pathak, 2017). Cultural orientation was also found to be an important variable, as Individualism vs. Collectivism had a strong positive influence on green purchase behavior (β = 0.369, t = 3.136, p = 0.002), thereby providing support for H3, consistent with the finding that collectivist cultures exhibit higher pro-environmental behavior (Theocharis & Tsekouropoulos, 2025; Ling et al., 2024; Peng et al, 2024). Restraint vs. Indulgence was not a significant predictor of green purchase behavior (β = –0.089, t = 0.776, p = 0.438), thus leading to the rejection of H4, indicating that values associated with indulgence may not influence actual behavior.

In terms of intention to purchase green products, Attitude (β = 0.143, t = 3.383, p = 0.001) and Subjective Norms (β = 0.283, t = 7.122, p < 0.001) were both shown to be statistically significant, slightly confirming H5 and H6 respectively, thus confirming that personal evaluations and perceived social pressures can generate intention.

Furthermore, cultural implications returned as relevant. Individualism vs. Collectivism had a very strong positive effect on intention to purchase green products (β = 0.730, t = 6.874, p < 0.001), supporting H7. Conversely, Restraint vs. Indulgence had a negative effect on intention to purchase green products (β = –0.410, t = 4.187, p < 0.001), supporting H8 and implying that indulgent values reduce intentions to be pro-environmental (Hofstede, 2011). Attitudes toward purchasing green products were shown to significantly predict behavior consistent with Ajzen's (1991) model (β = 0.145, t = 3.059, p = 0.002), supporting H9 and confirming the mediating role of intention. Importantly, the moderating hypothesis (H10) was supported as awareness of consequences significantly moderated the intention to purchase green products and behavior (β = 0.088, t = 3.848, p < 0.001). Figure 2 illustrates this moderation effect, showing that when awareness of consequences is high, the translation of intention into actual behavior becomes stronger, thus helping to close the well-documented "intention–behavior gap" in sustainable consumption (Qiu et al., 2025).

The blindfolding procedure was utilized to evaluate predictive relevance in addition to path analysis that has been shown in Table 6, where both Q^2 values for green purchase intention (0.326) and green purchase behavior (0.335) exceed zero, demonstrating that the model has demonstrably predictive relevance (Hair, 2014). The Q^2 value illustrates that the exogenous constructs have significant explanatory power in explaining the variation in the endogenous constructs (Cha, 1994). In conjunction with the R^2 values (green purchase intention = 0.491; green purchase behavior = 0.409), the studies demonstrate the model predicts or explains the moderate-to-substantial variance in endogenous variables (Lim, 2025). Overall, the structural examination concludes that attitudes, norms, and cultural orientations play meaningful roles in determining intention and behaviors towards purchases of green products, while awareness of consequences serves an essential moderating role in enhancing the intention-behavior relationship, yielding a model that is both theoretically meaningful and empirically sound.

Table 5: Direct and Indirect Pathways

HYPOTHESIS	PATHWAYS	BETA β	T Statistics (|O/STDEV|)	P Values	RESULT
H1	**Attitude -> green purchase behavior**	0.116	2.711	0.007	ACCEPTED
H2	**Subjective norms -> green purchase behavior**	0.169	3.968	0.000	ACCEPTED
H3	**individualism vs collectivism -> green purchase behavior**	0.369	3.136	0.002	ACCEPTED
H4	**restraint vs. indulgence -> green purchase behavior**	-0.089	0.776	0.438	REJECTED
H5	**Attitude -> green purchase intention**	0.143	3.383	0.001	ACCEPTED
H6	**Subjective norms -> green purchase intention**	0.283	7.122	0.000	ACCEPTED
H7	**individualism vs collectivism -> green purchase intention**	0.730	6.874	0.000	ACCEPTED
H8	**restraint vs. indulgence -> green purchase intention**	-0.410	4.187	0.000	ACCEPTED
H9	**green purchase intention -> green purchase behavior**	0.145	3.059	0.002	ACCEPTED
H10	**AC*GPI->GPB**	0.088	3.848	0.000	ACCEPTED

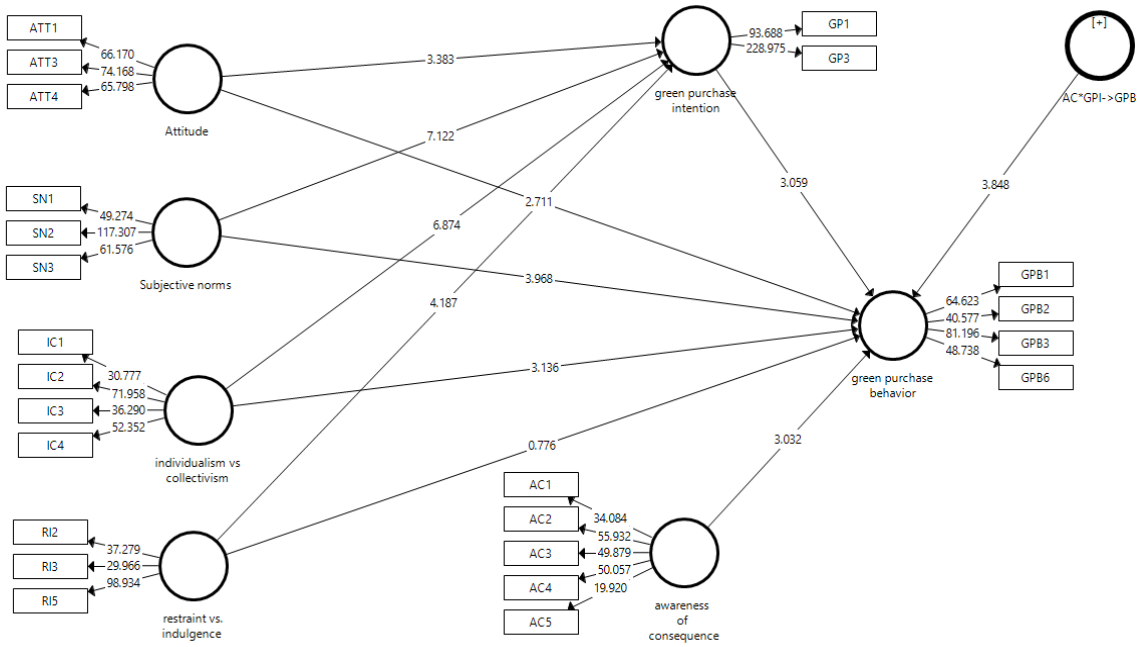


Figure 2: Moderation

Table 6: Blindfolding

	SSO	SSE	Q^2 (=1-SSE/SSO)
AC*GPI->GPB	918.000	918.000	
Attitude	2754.000	2754.000	
Subjective norms	2754.000	2754.000	
awareness _of _consequence_	4590.000	4590.000	
green purchase behavior	3672.000	2474.802	0.326
green purchase intention	1836.000	1221.213	0.335
individualism vs collectivism	3672.000	3672.000	
restraint vs. indulgence	2754.000	2754.000	

Results and Dicussion

The outcomes of the PLS-SEM analysis provide meaningful and empirical evidence for most of the hypothesized paths in the structural model, which buttresses the studies theoretical framework. In identifying direct effects, there was a statistically significant positive effect of Attitude on GPB (β = 0.116, t = 2.711, p = 0.007) which supports the proposition positing that positive evaluations by consumers lead towards environmentally responsible behavior. Also, Subjective Norms emerged as a significant predictor to GPB (β = 0.169, t = 3.968, p < 0.001), thus inferring that social pressure, expectations of peers, and normative pressure positively influence consumers' actual behavioral choices. In this, Cultural orientation also presented evidence of explanatory ability: Individualism vs. Collectivism reflecting a strong and statistically significant effect on GPB (β = 0.369, t = 3.136, p = 0.002) which is consistent with collectivist values producing a sense of collective responsibility and eco-friendly

behavior. On the contrary Restraint vs. Indulgence indicated no statistically significant association to GPB (β = -0.089, t = 0.776 - p = 0.438), therefore suggesting indulgent tendencies would not be exhibited in consumption actions given other relatively more powerful, psychological or cultural determinants.

For Green Purchase Intention (GPI), the results showed that Attitude was a significant predictor of intention (β = 0.143, t = 3.383, p = 0.001) indicating that positive evaluations of green products increased consumers' intentions to purchasing. Subjective Norms had a significant prediction on intention (β = 0.283, t = 7.122, p < 0.001), supporting that social influence, and social pressure were important for pro-environmental purchase intention. Again, cultural dimensions were important predictors, as Individualism vs. Collectivism had a very strong positive association with GPI (β = 0.730, t = 6.874, p < 0.001), suggesting that consumers with collectivist orientations were more influenced to align their intentions with aspects of looking out for other members of their community, or the environment. The results also found that a different cultural dimension, Restraint vs. Indulgence, was significantly negatively related with GPI (β = -0.410, t = 4.187, p < 0.001), indicating that the indulgent culture is a constraint to the intention of sustainable consumption because altruistic individuals seeking pleasure are less likely to care about environmental issues.

The connection from Green Purchase Intention to Green Purchase Behavior was additionally supported as a strong predictor of behavior (β = 0.145, t = 3.059, p = 0.002), confirming that intention mediated the psychological/cultural antecedents and consumer behavioral link. This supports the Theory of Planned Behavior which asserts intention is the most proximal predictor of behavior. Furthermore, the moderation effect of Awareness of Consequences (AC) was supported and significantly strengthened the relationship between GPI and GPB (β = 0.088, t = 3.848, p < 0.001). This indicates that when consumers are more aware of the environmental or social consequences of their consumption choices, they significantly increased the likelihood that they would translate their green purchase intention into green purchase behavior. The moderation effect of AC also seeks to address the "intention–behavior gap" often observed in sustainability research, suggesting that personal awareness can serve as a boundary condition enhancing intention development and realization.

The fit of the explanatory model was acceptable (R^2= 0.491 [adjusted R^2= 0.488] for GPB; R^2= 0.409 [adjusted R^2= 0.407] for GPI), indicating moderate-to substantial explanatory ability suggesting that about half of the variance in green purchase behavior - GPB - and more than 40% of the variance in green purchase intention - GPI - could be explained as a function of the predictors in the model. The predictive relevance was also assessed using a blindfolding method revealed Q^2= 0.326 for GPB and Q^2= 0.335 for GPI. Additionally, all Q^2 values were all greater than zero which further established predictive validity and accuracy of the model. In summary, the findings suggest that the structural model was significant in demonstrating not only statistical significance in the hypothesized pathways, but also meaningful explanatory and predictive power in consumer green purchasing behavior. The findings from this research confirmed the theoretical strength of the Theory of Planned Behavior (TPB) (Ajzen, 1991) to describe sustainability related consumer decision making, while also generating new explanatory capacities through consideration of cultural dimensions and consequence awareness as contextual determinants. Consistent with TPB, both Attitude and Subjective Norms were significant predictors of green purchase intention (GPI) and green purchase behavior (GPB). This indicates that consumers who hold positive evaluations towards a green product are more likely to both establish an intention to purchase the green product and act on that intention, while also providing strong evidence in the role social norms have in encouraging environmentally sustainable consumer behavior. This is similar to previous researches which demonstrated that consumers from developing economies were sensitive to social influence in their adoption of green practices (Naini & Reddy, 2025; Yadav & Pathak,

2017). This finding provides further support for a prior study which documented positive consumer beliefs towards eco-friendly products were strong precursors for green purchasing (Uikey et al., 2025).

In addition to psychological considerations at the individual level, this study accentuated the importance of cultural orientations in shaping sustainable consumption. Individualism vs. Collectivism exerted a significant influence, demonstrating significant positive influences on both intention and behavior. This is in keeping with the line of logic that civic values espouse group welfare, interdependence and shared responsibility. All of which are important in encouraging consumers to engage in pro-environmental behavior (Halan et al., 2025; Han and Stoel (2017). These findings support Hofstede's cultural dimensions' framework with respect to green consumerism, suggesting that consumer culture in collectivist societies may be culturally supportive for the adoption of sustainable consumption behavior (Hofstede, 2011). In regard to Restraint vs. Indulgence, the findings suggested a more intricate influence. While the values of indulgence exerted a significantly negative influence on intention, it is noteworthy that these values did not predict behavior directly. This was consistent with Hofstede's suggestion that indulgent societies value pleasure-seeking and immediate gratification, which may interfere with consumer's ability to think on a time horizon— in this instance in the context of sustainable consumption. Simultaneously, the absence of a direct relationship on behavior signifies that indulgence may primarily function as an antecedent of behavior during the intention-formation stage in the context of sustainable consumption; thus, external situational factors will trump the conditioning of indulgence as behavior takes place. This complements the findings by a previous study that posited that indulgence-driven values typically attenuate pro-environmental intentions, with the enacting of behavior depending on situational cues (e.g. availability, affordability or social visibility) associated with green products (Wang, 2025).

This study importantly confirms that awareness of consequences (AC) acts to moderate the relationship between general pro-environmental identity (GPI) and green purchasing behavior (GPB). The observed moderating effect implies that individuals who are more aware of the ecological and social consequences of their actions are more likely to act in accordance with their pro-environmental intentions. The results offer empirical evidence to tackle the established "intention-behavior gap" in sustainability research literature, where consumers claim to have pro-environmental intentions towards green products but mostly fail to turn those intentions into behaviors (Qiu et al., 2025). By revealing that awareness works to strengthen intention-behavior links, this study illustrates the importance of cognizance and feeling morally obliged to assist sustainable consumption. This finding is consistent and builds upon a previous meta-analysis about ecological behavior, who drew attention to behavioral norms, moral norms, and awareness of consequences as putting distance between behavior and attitudes (Hinterhuber & Khan, 2025).

Conclusively, these relevant results enhance TPB's understanding of sustainable consumerism by adding cultural and cognitive dimensions concerning the boundaries encapsulated within the theory. Moreover, relevant sustainable consumerism processes draw attention to cultural orientation and awareness of consequences as salient boundary conditions for which, while visible psychology predictors (attitude, norms, intention) should be considered, cultural orientation and awareness of consequences should also be attended to, supporting or constraining the enactment of recycling behaviors. This multi-dimensional perspective not only enhances theoretical clarity but also provides a more nuanced explanation of why sustainable intentions do not always translate into action, particularly across different cultural contexts.

Conclusion

The study determines that sustainable consumer behavior is influenced by the intersectional effects of psychological, cultural, and cognitive factors,

providing a comprehensive view of the factors influencing pro-environmental consumption. On the psychological level, it was concluded that attitudes and subjective norms play a significant role in both green purchase intention (GPI) and green purchase behavior (GPB), thereby demonstrating the validity of the Theory of Planned Behavior (Ajzen, 1991) in the stationary of sustainable consumption. Thus, the results imply that consumers' positive appraisals of green products, as well as expectations perceived from important referents, create a strong basis from which individuals can form sustainable purchase intentions and behaviors.

Cultural orientations, in addition to consumer psychology, emerged as key boundary conditions that will either amplify or diminish green consumerism. Collectivism had a significant impact on intention and behavior, suggesting that those cultures that exhibit strong group orientation and interdependence indicate that cultures will act in a manner that suggests collective responsibility and pro-environmental behaviors (Theocharis & Tsekouropoulos, 2025; Ling et al., 2024; Peng et al, 2024) From the opposite perspective, we considered that indulgent value represented a deterrent to intention but did not exhibit a significant direct effect on behavior. This supports Hofstede's view that indulgent cultures value instant gratification and indulgence over sustainability in the future (Hofstede, 2011). All of these findings illustrate that context matters when desiring to explain variability in sustainable consumption across cultures.

The significance of this research is chiefly illustrated in showing awareness of consequences as a moderator in the relationship between intention and behavior. The moderation effect provides supporting evidence for the assumption that the awareness of consequences increases the likelihood of intentions being acted on as behavior, and thereby, helps to address the now-documented "intention-behavior gap" within the literature on green consumption (Qiu et al., 2025; Salman & Jalees, 2025). This suggests that consumers who have more substantial awareness of the environmental and social consequence of their behaviors would not have as much of an intention-behavior gap.

To conclude, the current study makes theoretical, empirical, and contextual contributions to research on sustainable consumer behavior. Theoretical contributions were made to the theory of planned behavior (TPB) by using additional constructs to TPB, specifically a measure of cultural dimension, and awareness of consequences. Empirical contributions demonstrate the relative explanatory power of attitudes, norms, and cultural orientations as predictors of intentions and behavior. Contextually, the study findings suggest that an increased awareness of consequences - or consequences to the environment - may ultimately be an important contributor to bridging the intention-behavior gap. In general, the findings are important in advancing the research area of sustainable consumption as it contributes to not only robust statistical practices in research, but also practical implications for practitioners and researchers involved in policy, marketing and management areas interested in promoting pro-environment behavior across cultures.

Through the available evidence base and theoretical foundation, we can suggest a number of important implications for policymakers, organizations, and marketers to promote sustainable consumer behavior: policymakers should prioritize environmental education and develop awareness campaigns that explicitly discuss the ecological and social implications of unsustainable consumption. For example, governmental campaigns may utilize visual storytelling to characterize the implications of plastic waste for marine animals and providing a calculator for consumers to determine their carbon footprint. These examples are hopeful that by demonstrating visceral consequences, they will improve the consistency between green purchase intention (GPI) and green purchase behavior (GPB). This recommendation is aligned with the body of research reporting the benefits of increased awareness of environmental consequences on the consistency of attitudes, intentions, and behaviors (Theocharis & Tsekouropoulos, 2025; Ling et al., 2024; Peng et

al, 2024). Marketing and communication strategies should target culturally-oriented, particularly collectivist and indulgent orientations. For collectivist cultures, the campaign should appeal to the shared responsibility to illustrate community benefit and how sustainable decisions benefit future generations (e.g., "think of the children") because it is responsive to collectivist values that prioritize the group over the individual. On the other hand, sustainability must be framed within an indulgent culture about pleasure, aspiration, and style (e.g., eco-friendly products must be presented as stylish icons, not solely ethical considerations). When targeting both collectivist and indulgent cultures, you can build cultural coherence, which has been shown to produce higher receptivity and intentions to adopt green behaviors (Theocharis & Tsekouropoulos, 2025; Ling et al., 2024; Peng et al, 2024).

Organizations should make explicit use of subjective norms by embedding social influence cues in their marketing and branding. This could be done using eco-labels in order to provide some external validation, as well as endorsements by influencers or opinion leaders, and community-based initiatives that focus on social proof and their shared choices to adopt green alternatives and practices. An example would be saying, "most people in your city have switched to eco-friendly alternatives". Prior research suggests that social visibility and influence from peers are strong motivators in narrowing the gap between intention and behavior (Naini & Reddy, 2025; Yadav & Pathak, 2017). To address and rein in the "intention–behavior gap" in individuals' decision making, organizations and advertisers should develop awareness of consequences into their marketing, packaging, or other means of communicating about their product to consumers. For example, packaging could illustrate the environmental benefit of using a green product (e.g., "This product saves 30 liters of water"), and the environmental harms of not making pro-environmental decisions. In a similar vein, digital campaigns could utilize gamified tools, perhaps where they reward consumers for eco-friendly purchases, and visualize some cumulative environmental benefit of their actions. These interventions enhance cognitive awareness, which the current study identified as an important moderator of discrete positive intentions/action pairings (Qiu et al., 2025; Salman & Jalees, 2025).

There are limitations to this study that should be acknowledged. First, this is a cross-sectional study; as such, the capacity for causality is limited and the study would be stronger if a longitudinal study were undertaken to assess how attitudes and behaviors change over time. Second, self-report was used, so it is possible that socially desirable responding may have resulted in consumers over-reporting their pro-environmental intentions. Third, this research investigated the cultural dimensions of individualism/collectivism and indulgence/restraint; other dimensions such as uncertainty avoidance and long-term orientation may also provide interesting information. Finally, this study was situated within a particular context, limiting the direct generalizability of the results across cultural and industry contexts. For practitioners, this information suggests that fostering deeper awareness about the environmental implications of consumption may be key to narrowing the disparity in consumer intentions and consumer action. Campaigns can bolster how consumers follow through with purchase intentions after an event by framing the actual environmental impact associated with their consumption decision, like carbon footprint, the volume of waste disposed of, or a biodiversity benefit. Campaigns may also elicit collectivist cultural values that drive green purchasing for the benefit of the community, family, or future generations. In addition, sustainable indulgence will benefit from trans-language green products or behaviors to be pleasurable and on trend—not just green. The findings from this research provide management implications that involve directly motivating and developing sustainable consumer behavior. The initial implication relates to their business, which is to create marketing strategies that frame the outcomes of product usage and disposal, whereby utilizing the outcomes as a trigger would facilitate the awareness stage of a behavior. Secondly—to build social proof into a campaign, they should use peer recognition and influencer involvement to establish subjective

norms. Third, businesses positioned in collectivist culture should establish that the values that exist regarding Corporate Social Responsibility (CSR) programming are aligned with the values of the society in which these businesses operate, thereby demonstrating benefits to group-oriented consumers. Lastly, managers should be reminded that as part of responsibility for motivating consumers, awareness of outcomes is not just consideration of the consumer-environment, but as a managerial consideration. By engaging consumers through the disclosures of sustainability of their performance and known strategy in achieving environmental sustainability could increase consumer trust, loyalty and in turn establish pro-environment behaviors.

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