**Understanding the Role of Personal Norms and Consumer Scepticism in Green Purchase Decisions**

**Abstract**

Understanding consumer behaviour in the context of sustainable consumption is crucial for fostering long-term environmental responsibility. This study examines the interconnections between personal norms, green purchase intention, consumer buying processes, and post-purchase outcomes. The research investigates how personal norms shape green purchase intention and how consumer satisfaction and scepticism influence continued green consumption. The study also explores the role of greenwashing in fueling scepticism and alternative evaluation in influencing purchase satisfaction. Employing a correlational research design, data were collected through a structured questionnaire using a five-point Likert scale. A pilot study confirmed the reliability of adapted scales, and statistical analyses were conducted to determine relationships between the following key variables: personal norms, green purchase intention, green choice, satisfaction, alternative evaluation, greenwashing, and consumer scepticism. It further analysed variations across socio-demographic factors such as gender, area of residence, and income groups. Findings reveal that personal norms significantly influence green purchase intention, which in turn impacts satisfaction. Satisfaction positively correlates with consumer scepticism, highlighting the complexity of green consumption. Additionally, alternative evaluation is linked to both satisfaction and scepticism, suggesting that consumers reassess their choices in response to market inconsistencies. Mediation analyses demonstrate that green purchase intention partially mediates the relationship between personal norms and green purchases, while consumer scepticism mediates the relationship between alternative evaluation and both satisfaction and green purchase behaviour. This research contributes to the existing literature by elucidating the psychological and behavioural mechanisms underlying green purchase decisions. The findings offer valuable insights for policymakers, businesses, and marketers to develop strategies that enhance consumer trust, reduce scepticism, and promote sustainable consumption.

**Keywords**: Green Purchase Behaviour, Consumer Scepticism, Personal Norms, Greenwashing, Sustainable Consumption

**Introduction**

The increasing awareness of environmental changes has led people to be more environmentally

conscious. The green movement has become more significant and is being accepted as a mainstream approach among consumers (Syadzwina & Astuti, 2021). Consumer green purchase behaviour has become one of the most popular research topics among academics, especially in the last three decades. Once, consumer demographics were one of the most widely used methods. However,, later literature reviews showed that they have had only limited success to explain consumer green purchase behaviour (Albayrak et al., 2011). One type of environmentally sensitive behaviour is “green purchase behaviour” which can be observed in those consumers who scrutinise labels, who use biodegradable garbage bags and biodegradable soaps and natural detergents, who purchase goods with biodegradable packaging and who refuse to purchase from restaurants where styrofoam packages are used (Kreczmańska-Gigol & Gigol, 2022). One shall consider consumers' trust with deep concerns and knowledge regarding the environmental issues to notable predictors of green purchase behaviour. Previous research shows that consumers who believe in environmental issues' urgency show a higher intention to pay more for sustainably claimed products (González-Rodríguez et al.,2020). In green consumption, buyers consider the environmental impact of buying, using, and disposing of different products (Moisander, 2007). Green purchasing behaviour is affected by consumers’ material status, tertiary education, and knowledge of the environmental impacts of products (Ritter et al., 2015). Consumer attitudes toward the environment are equally important. Women tend to be more concerned than men that the products they buy positively impact health and protect the environment (Testa et al., 2021; Irianto, 2015).

**Greenwashing**

Lyon and Maxwell, who presented the first economic analysis of greenwashing in 2011, considered selective disclosure to also be a form of greenwashing. Selective disclosure of positive information about a company’s environmental or social performance, without full disclosure of negative information on these dimensions, was done in order to maintain a pristine corporate image.

Siano et al., associate greenwashing with symbolic actions, describing it as a practice that shifts focus to minor issues or generates "green talk"—statements intended to meet stakeholder expectations regarding sustainability without implementing any meaningful actions. The phenomenon of greenwashing has also been linked to corporate legitimacy theory in existing literature, which categorises legitimacy into three types: cognitive, pragmatic, and moral. According to Seele and Gatti in 2017, greenwashing is primarily associated with pragmatic legitimacy. They explain that “cognitive legitimacy is rooted in shared, taken-for-granted assumptions within an organisation’s societal environment,” while “moral legitimacy is based on ethical evaluations of the organisation and its behaviour”. Pragmatic legitimacy, on the other hand, arises from the self-interested calculations of key stakeholders and depends on their perception of personal benefits gained from the organisation’s actions and communications.

**Green Purchase Intention**

According to Chen & Chang, Green purchase intention (GPI) refers to a consumer's willingness or likelihood to prefer eco-friendly products over conventional alternatives. It reflects a conscious effort by individuals to minimise their environmental impact through consumption choices. GPI is often influenced by a combination of internal factors (e.g., attitudes, values) and external factors (e.g., societal norms, marketing strategies). It is a significant predictor of green purchase behaviour, meaning that it positively affects the likelihood of a customer deciding whether or not to buy green products. In Chan’s study in 2001, he found that there was a low degree of actual commitment to green purchases.

The Theory of Planned Behaviour (TPB), developed by Ajzen in 1991, provides a fundamental archetype for researching GPI. TPB claims that viewpoints on eco-friendly items have a big impact on consumers' intention to buy them. Customers' aspirations to select green alternatives are frequently fortified by conducive opinions about the advantages for the environment, product quality, and health.

A consumer's perception that their personal activities can help protect the environment is known as perceived consumer effectiveness, or PCE, and because customers feel more empowered to influence their purchasing decisions, higher PCE boosts GPI.

**NAM & Decision Making**

Decision making is a cognitive process that involves coming to a conclusion about taking an action after going through multiple or different alternatives or options. The Engel Blackwell Miniard model, or EBM model, is the most commonly recognised model among several that have been constructed (Engel et al., 1995). According to this model, a buyer goes through five stages when making a decision. The phases are - (I) Need Recognition, (II) Information Search, (III) Evaluation of Alternatives, (IV) Purchase and (V) Post Purchase.

The initial three phases are together referred to as the Pre-Purchasing stage. This stage is when a customer realises that they need a particular good, and looks for data to satisfy that need. When all of the options have been compared and assessed, the best option is finally chosen (Mishra, 2018).

Gay et al. (2010) described that evaluation entails gathering and evaluating the data collected during the information search phase. The benchmarks that customers use to distinguish between various products or brand types are known as evaluative criteria.

This assessment may be subjective or objective. The practical parts of the product, such as its properties and the advantages that it offers, are considered objective attributes. Conversely, subjective elements are associated with the sentimental aspects of the product, such as ease, status, etc. When making a first-time purchase, consumers carefully assess a number of product types, whereas habitual decision-makers may not weigh as many options. When a consumer is faced with a choice between multiple products, he must also conduct an extended examination of his options (Solomon, 2004).

There are a number of criteria which consumers use for alternative evaluation. One of the key factors considered while comparing options is price. One of the most widely held notions among customers is the price-quality correlation. Pechmann and Ratneshwar stated that, in general, buyers view price as an exterior characteristic to assess the quality of the goods (1991). However, Rao and Monroe (1988) believed that when customers can manage to comprehend various other indicators, the likelihood of their considering cost as a measure of quality decreases. In a study conducted by Mishra (2018) on the criteria for alternative evaluation among consumers, 856 respondents were studied. The results showed that 50% people always used price as a criterion for comparison, and when it comes to product quality, more than half of the respondents agreed that it is always a factor to consider purchase.

Another criterion used for alternative evaluation is brand. Choosing and sticking to a certain brand is a popular method of streamlining the decision-making process. The client can then spend less time in the information and assessment phases. The customer can just decide to buy directly from their favoured brand (Mishra, 2018). Aaker and Keller in 1990 said that customers relate to the brand identity and hence, it becomes an important criterion to base purchase decisions. Businesses think that by developing a robust brand perception in the eyes of the customers, they might lessen the consumer's uncertainty while weighing the pros and cons of several options. Additionally, this enhances one's commitment to the brand, and the potential for buying from the brand rises. When making regular purchases, a customer might not consider all the options available and ultimately, just buy their preferred brand. On the other hand, consumers will weigh the pros and disadvantages of several brands while making their initial product purchase (Mishra, 2018).

Offering sales and discounts affects consumers' perceptions of the worth of their purchases. Customers believe that they have negotiated because of sales and discounts, which fosters “transaction utility” or “smart shopper thoughts.” The hedonic value rises as a result. Furthermore, bargains and reductions may result in the purchase of an effective final good, which might increase utilitarian value (Babin et al., 1994). Muruganantham and Bhakat, in their 2013 study, stated that offers have been identified as one of the primary factors driving consumers’ impulsive purchases.

The majority of word-of-mouth comes from people the consumer trusts, like friends and family (Bansal and Voyer, 2000; Brown and Reingen, 1987). Some customers only buy products from brands they have used in their own family.

The appraisal of options is the most important of these three sub-stages. It brings consumers to the point of purchase in their decision-making process. Mishra (2018) suggested the assessment criteria can be roughly categorised as follows: non-product associated criteria, primary product criteria, and additional item-related criteria for alternative evaluation.

Emekci (2019) believed that personality attributes, rather than socioeconomic considerations, are a more reliable predictor of environmentally conscious consumers. The Big Five Personality Traits theory, initially given by D.W.Fiske, talks about five major personality traits - neuroticism, agreeableness, extraversion, conscientiousness, and openness.

A study done by Bhrambhatt in 2023 showed that people with high scores for Openness, Conscientiousness, Extraversion, and Agreeableness also scored considerably high in their Green Purchase Intention. However, no correlation was found between individuals with high scores for green purchase intention and high scores for Neuroticism personality traits.

In the same research, those with high scores on environmental concern were also found to have considerably greater ratings on extraversion, conscientiousness, agreeableness and openness in the OCEAN personality traits. Yet, no association was found between those with high scores on environmental importance and neuroticism traits.

Schwartz created the Norm activation theory (NAT) to explain the connection between actions, personal norms, and activators (Harland et al., 2007). NAT was originally developed to explain helping behaviour, but it was later expanded to philanthropic behaviour that benefits others in general. One of the primary NAT theories is that pro-social conduct is influenced by the stimulation of ethical values that an individual has (Turaga et al., 2010). NAT is frequently used to explain how decisions are made in moral contexts like environmentally conscious behaviour (Stern et al., 1999).

Norm-activations, as defined by NAT, are the processes by which people form expectations for themselves about pro-social behaviour. These self-expectations are referred to as "personal norms" and are characterised by righteous duties or responsibilities that directly impact conduct (Harland et al., 2007). However, the study by Harland et al. in 2007 also mentioned that personal norm activation alone is insufficient to promote prosocial behaviour because it can be countered by downplaying the impact of one’s actions on other people or by downplaying one’s own responsibility for their deeds.

Four situational elements or activators namely, (i) awareness of need, (ii) situational accountability, (iii) efficacy, and (iv) ability as well as two activators of personality traits i.e. (i) awareness of consequences and (ii) denial of accountability—combine to form the framework of norm activation.

So NAT states that environmentally friendly behaviour in people emerges when they acknowledge responsibility for doing their part for the good of all mankind and when they are mindful of the implications of their choices and behaviours on the planet (Turaga et al., 2010).

**Green Purchase Behaviour**

According to Joshi & Rahman, Green purchase behaviour (GPB) refers to the actual buying actions of consumers who prioritise environmentally friendly products and services over conventional ones. Unlike green purchase intention, which reflects willingness or readiness, GPB is the manifestation of these intentions in real purchasing decisions.

Taufique & Vaithianathan’s study on understanding green consumer behaviour among young urban Indian consumers reveal that environmental knowledge—both general and product-specific—has a significant impact on GPB. Consumers who understand environmental issues, such as climate change and resource depletion, are more inclined to support eco-friendly products.

**Consumer Scepticism**

Foreh & Grier, used the definition of the term “scepticism” is that it refers to an individual's inclination to doubt, disbelieve, or question someone or something. Scepticism is a topic studied across different fields of subjects such as psychology, sociology, politics, and philosophy.

According to Obermiller, consumer scepticism refers to the degree to which consumers doubt or question the authenticity of marketing claims, especially those related to environmental and ethical issues. This scepticism is crucial in the context of greenwashing, where companies may falsely portray their products or practices as environmentally friendly. As confirmed by Goh and Balaji in 2016, greenwashing leads to scepticism, which directly impacts the green purchase decision of the consumers. Therefore, scepticism in this context is the tendency of consumers to disbelieve advertising information and distrust the advertiser’s intentions.

Consumers' scepticism increases when green claims lack credibility or transparency. According to Aji and Sutikno (2015), when companies make environmental claims without providing evidence or clear explanations, it diminishes consumer trust and encourages scepticism. They noted that Scepticism also arises from what has been termed "green talk"—exaggerated or unsubstantiated environmental claims. When companies overstate their environmental achievements without any verifiable evidence, it only fuels consumer scepticism. The use of vague language like "eco-friendly" or "green" without accompanying proof leads to a negative perception among consumers, who begin to question the sincerity of companies' green intentions.

According to Romani, Grappi, & Bagozzi, there are two possible types of scepticism: situational scepticism, also known as state scepticism, in which people's scepticism fluctuates depending on the source and message variables; and dispositional/trait scepticism, in which people have doubts about business, marketing, advertising, and organizational communication.

Situational scepticism relies on the circumstances and is not influenced by an individual's traits. It occurs in circumstances where people might have doubts in trusting certain green claims. Situational factors like time constraints, accessibility, and perceived social norms can further fuel this scepticism, leading individuals to revert to more familiar, mainstream products despite their environmental concerns. This hesitation to fully embrace green consumption can be exacerbated by greenwashing tactics, where companies make misleading or unsubstantiated environmental claims to attract eco-conscious consumers. Consumers who display dispositional scepticism may be more likely to scrutinize the sustainability and eco-friendly credentials of products rather than simply trust manufacturers' marketing claims. This is because they are ‘predisposed’ to questioning the authenticity. Dispositional scepticism occurs among consumers who have a tendency to be critical and analytical of everything they come across. They may carefully research and evaluate the actual environmental impact and production processes behind "green" goods, looking for objective evidence to support any environmental benefits. Dispositional scepticism in green consumption can also manifest as a general distrust of corporate motives, doubting whether companies are genuinely committed to sustainability or are merely using it as a marketing ploy.

Chaabane & Parguel emphasize that high levels of scepticism can dampen attitudes toward the message, the organization, and purchase intention, as well as reduce positive feelings. While this outcome was a case of situational scepticism, studies offer empirical evidence for similar outcomes with dispositional scepticism.

Ottman et al.. (2006) emphasized that companies should communicate their environmental practices to gain consumer confidence. Moreover, when the information presented is vague or misleading, consumers are likely to perceive the claims as manipulative, significantly increasing their scepticism.

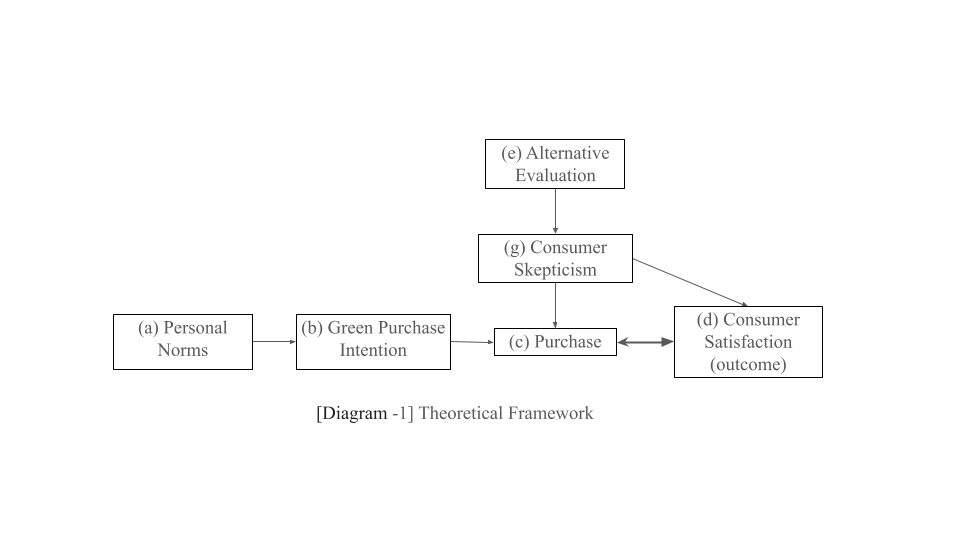
Third-party certifications play a critical role in alleviating scepticism. According to Zinkhan and Carlson (1995), certifications like Energy Star or Fair Trade provide consumers with an objective measure of a product's environmental credentials, helping them overcome doubts about the legitimacy of green claims.

A study conducted by Khandelwal, Sharma & Jain (2019) confirmed that the level of awareness of customers is low by testing how greenwashing affects customers’ perception. In Context to this study, the attitude towards quality labeling and the perceived value were assumed to decline when customers are getting informed about greenwashing. The awareness has been considered to influence customers' beliefs and norms, consequently affecting customers’ purchase decision, in particular, on the tested constructs of the attitude towards quality label and their perceived value. It became clear that the explanation of the phenomenon had a consequential effect on participants’ responses. Overall, this indicates a decline in customers' decisions to purchase quality-labeled products. This outcome is further supported by the respondents' preference for either labeled or unlabeled packaging. The number of respondents choosing the unlabeled product increased, while the choice for the labeled product decreased.

**Theoretical Framework**

This research seeks to unravel the complexities of green purchase behaviour by exploring the interplay between personal norms, green purchase intention, consumer buying processes, and post-purchase outcomes. Personal norms act as the moral compass driving intention, which serves as the bridge between values and action. Four situational elements or activators namely, (i) awareness of need, (ii) situational accountability, (iii) efficacy, and (iv) ability as well as two activators of personality traits i.e. (i) awareness of consequences and (ii) denial of accountability—combine to form the framework of norm activation. (Harland et al., 2007) This combined set of traits makes up behaviour, which in this case is the intention to purchase green products or GPI. This study aims to examine a consumer’s process of purchasing, and this step is necessary as it determines whether an individual is willing to purchase green products; the Purchase Intention, without which the process wouldn't exist. The consumer buying process encompasses alternative evaluation, decision-making, and reflection on outcomes. The framework is inspired by the Engel-Blackwell-Miniard model. This model includes the five phases a buyer goes through before making a purchase being (I) Need Recognition, (II) Information Search, (III) Evaluation of Alternatives, (IV) Purchase and (V) Post Purchase (Engel et al., 1995). The framework for this study includes Personal Norms and GPI as pre-purchasing steps as they work to build the intent of a consumer to purchase green products, leading to the eventual purchasing behaviour, refer to diagram 1. The crux of this model, which is the purchase, the outcome (consumer satisfaction or dissatisfaction), and the evaluation of alternatives, are one of the focal points of this study. The outcome is either satisfaction or dissatisfaction that further governs the behaviour of the consumer. If the consumer is satisfied with their product, the cycle ends there, but if the purchase leads to dissatisfaction, the cycle further goes on to the next phase of the process, which is consumer scepticism and alternative evaluation of a product. A study conducted by Mishra (2018), served as the basis for evaluation criteria of various consumers. Post-purchase outcomes, ie. scepticism or satisfaction, significantly influence whether consumers persist in their green consumption journey or retreat to conventional choices. Scepticism, often fueled by greenwashing or perceived inauthenticity, challenges the credibility of green claims, while satisfaction reinforces trust and encourages repeat purchases. This study is focused on a vital aspect of greenwashing, and it further examines how consumers navigate obstacles like inconvenience and misinformation and whether they remain steadfast in their pursuit of sustainable products. By analysing these dynamics, the research aims to provide actionable insights into fostering sustained green consumption and mitigating barriers such as scepticism or dissatisfaction.

Diagram 1 : **Theoretical Framework**



**Methodology:**

**Research Design**

This study uses a correlational research design to explore relationships between two or more variables, aiming to identify statistically significant correlations. Data collection centres on the relevant variables, which are analysed using statistical techniques to assess the strength and direction of their relationships. The questionnaire employed validated, reliable scales, adapted to suit the specific research context. This approach helps reveal how the variables are connected and interact with one another.

**Participants**

**Inclusion criteria:**

Minimum 18 years of age

Female, Male, Other Gender.

**Exclusion criteria:**

Anyone under 18 years of age.

**Demographic Details of the Participants:**

Demographic Details of the Participants: Of the 340 participants, 94 were male (30.1%), 215 female (68.9%), 3 were other (1%).

Majority of the sample lies in the age range of 18-24 (166, 53.2%), followed by 45 and above (60, 19.2%), and 25-34 (50, 16%), 35-44 (36, 11.5%).

152 (48.7%) undergraduates (pursuing as well as graduates), and 135 (43.3%) pursuing or having completed post-graduation or above, 24 (7.7%) were educated between 8 and 13 years, with 1 (0.3%), educated up to 8 years.

153 participants (49%) were students, 21 (6.7%) were unemployed, and 138 (44.2%) were employed (Salaried, Self-employed and/or by other means)

75 participants (24%) reported family income below 3 lakhs, 96 participants (30.8%) between 3 and 8 lakhs, 60 participants (19.2%) between 8 and 12 lakhs, and 81 participants (26%) above 12 lakhs.

271 (86.9%) participants resided in urban areas, while 41 (13.1%) resided in rural areas.

186 (59.6%) participants reported their marital status as single, 121 (38.8%) reported to be married, and 5 (1.6%) participants reported to have been separated.

**Procedure:**

This study aimed to explore the relationship between various variables: Personal Norms, Green Purchase Intention, Green Choice, Satisfaction, Alternative Evaluation, Greenwashing, and Consumer Scepticism. It also examined how these variables differed across socio-demographic groups, including gender, area, and family income. Data was collected using an online Google Form to maximise reach, with a consent form ensuring participants' privacy and willingness to participate. Instructions guided participants on using a five-point Likert scale, where 1 indicated strong disagreement and 5 indicated strong agreement, to rate the relevance of topics to their experiences. The questionnaire consisted of 34 items, including seven questions related to socio-demographics. The Likert scale helped in measuring participants' responses across the study's key topics, enabling a thorough understanding of their perspectives on green choices and consumer scepticism in relation to personal norms and greenwashing.

**A. Hypotheses**

**Correlation:**

1. There is no significant correlation between (a.) personal norms and (b.) consumer’s intention of buying green products. (H 1)
2. There is no significant correlation between the intention of buying green products and the outcome (satisfaction or dissatisfaction) of the purchase. (H 2)
3. There is no significant correlation between consumer satisfaction and the alternative evaluation of green products. (H 3)
4. There is no significant correlation between the outcome of the purchase of green products and consumer scepticism of green products. (H 4)
5. There is no significant correlation between the evaluation of alternatives and consumer scepticism of green products. (H 5)

**Social Demographics with Personal Norms:**

1. There will not be a significant difference in “Personal Norms” between “Genders”.(H 6.1)
2. There will not be a significant difference in “Personal Norms” between “Area of Residence”. (H 6.2)
3. There will not be a significant difference in “Personal Norms” between “Family Income”.(H 6.3)

**Social Demographics with Alternative Evaluation:**

1. There will not be a significant difference in “Alternative Evaluation” between “Genders”.(H 7.1)
2. There will not be a significant difference in “Alternative Evaluation” between “Area of Residence”. (H 7.2)
3. There will not be a significant difference in “Alternative Evaluation” between “Family Income”.(H 7.3)

**Social Demographics with Consumer Scepticism:**

1. There will not be a significant difference in “Consumer Scepticism” between “Genders”.(H 8.1)
2. There will not be a significant difference in “Consumer Scepticism” between “Area of Residence”.(H 8.2)
3. There will not be a significant difference in “Consumer Scepticism” between “Family Income”.(H 8.3)

**Mediation**

1. The relationship between **Personal norms** and **Green purchase** is not mediated by (not accounted for by) **Green purchase intention**. (H 9.1) (A-B-C)
2. The relationship between **Alternative Evaluation** and **outcome (purchase Satisfaction)** is not mediated by (not accounted for by) **Consumer Scepticism**. (H 9.2) (E-G-D)
3. The relationship between **Alternative Evaluation** and **Green Purchase** is not mediated by (not accounted for by) **consumer scepticism**. (H 9.3) (E-G-C)

**B. Measuring Scales:**

The scales and measures used for the constructs were adapted from:

(Chandra, nd) consisting of 4 items for **Personal Norms**.

(Li et al., 2021) consisting of 7 items for **Green Purchase Intention**.

(Gupta, 2022) consisting of 2 items for **Purchase**.

(Braga et al., 2019) consisting of 6 items for **Satisfaction**.

(Mishra, 2018) consisting of 4 items for **Alternative Evaluation** (questions derived from the stated criteria).

(Li et al., 2021) consisting of 5 items for **Greenwashing**.

(Braga et al., 2019) consisting of 6 items for **Consumer Scepticism**.

All the adapted scales used a five-point Likert scale. The Likert scale ranges from 1 to 5, where 1 represents strongly disagree and 5 represents strongly agree. A pilot study involving 25 participants was carried out to evaluate the internal consistency of the scales. A metric called Cronbach's alpha was employed to evaluate internal consistency. The analysis's findings are presented below in Table 1.

**Table: 1: Cronbach’s Alpha Value of a Pilot with 25 Subjects**

|  |  |  |
| --- | --- | --- |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **A.** | **Personal Norms.** | **0.857** |
| 1. | I feel morally obliged to protect the environment. |  |
| 2. | I feel it is important that people in general have concern about the environment. |  |
| 3. | Because of my personal norms and values, I feel it’s important to be as environmentally friendly as possible. |  |
| 4. | I feel like I should protect the environment even if it is a small act of my own. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **B.** | **Green Purchase Intention.** | **0.883** |
| 1. | You expect to buy environmentally friendly and sustainable products. |  |
| 2. | You tend to buy products that are recyclable or that have a clear way to dispose of them at the end of their use. |  |
| 3. | When purchasing a product, you will consider whether the production of the product is harmful to animals and plants. |  |
| 4. | You want to buy products with environmental performance (energy saving and emission reduction), such as energy-saving air conditioning. |  |
| 5. | For ecological reasons, you may consider switching to a greener brand. |  |
| 6. | You plan to switch to a green product (e.g. replace the lights in your home with energy efficient ones). |  |
| 7. | In future consumption, you want to increase the purchase/use of green products for yourself. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **C.** | **The Decision Making Process: Green Choice (Purchase).** | **0.72** |
| 1. | You use green products because they are the best choice for you. |  |
| 2. | In comparison to non-green products, green products are growing in popularity. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **D.** | **The Decision Making Process: Satisfaction (Outcome).** | **0.713** |
| 1. | I always identify with green products. |  |
| 2. | I always recommend green products to my friends and family members. |  |
| 3. | Green products meet my quality expectations. |  |
| 4. | Green product prices represent their quality. |  |
| 5. | Green product prices are higher than their quality. |  |
| 6. | When I buy a green product, I'm satisfied with its quality. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **E.** | **The Decision Making Process: Alternative Evaluation.** | **0.898** |
| 1. | I compare the price of a particular product with other relevant products before making a purchase. |  |
| 2. | I check and compare the quality of multiple products before making a purchase. |  |
| 3. | I compare discounts and deals of various products in a given market, as the availability of such factors adds value to the overall purchasing decision. |  |
| 4. | I make purchasing decisions based on the experience of using the products, eg: customer reviews, discussion with family and friends. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **F.** | **Greenwashing.** | **0.912** |
| 1. | You can recognize that the product is literally misleading about its environmental characteristics. |  |
| 2. | You can identify products with "green labels" or images that mislead the nature of their environment. |  |
| 3. | You can recognize that the product has a vague or seemingly unprovable green claim. |  |
| 4. | You can tell that the product is exaggerating its green features. |  |
| 5. | You can tell that the product omits or obscures important information to make the green claim sound better than it should. |  |
|  |  |  |
| **Sr.No** | **Variable** | **Cronbach’s Alpha Value** |
| **G.** | **Consumer Scepticism.** | **0.854** |
| 1. | There is a great similarity between many products and this makes it hard to know which one is green. |  |
| 2. | Recognising the differences between a green product and other products on the market is very difficult. |  |
| 3. | The fact that there are many products on the market always creates confusion in recognising their green characteristics. |  |
| 4. | There are so many products that it is hard to decide to buy the one that respects the proper use of environmental resources. |  |
| 5. | Whenever I buy a product, I don't feel sufficiently informed about whether or not it is green. |  |
| 6. | Whenever I buy a product, I question its green characteristics. |  |

**Results:**

Descriptive statistics were conducted for the scores of Personal Norms, Green Purchase Intention, Green Choice, Satisfaction, Alternative Evaluation, Greenwashing, and Consumer Scepticism in a sample of 340 participants. Table 2 shows the mean and standard deviation for the mentioned variables.

They are as follows: “Personal Norms” (M = 28.412, SD = 4.213), “Green Purchase Intention”

(M = 17.374, SD = 2.317), “Green Choice” (M = 21.685, SD = 3.443) “Satisfaction”

(M = 16.271, SD = 2.504), “Alternative Evaluation” (M = 18.312, SD =3.314),

“Greenwashing” (M = 22.241, SD =3.729), “Consumer Scepticism”(M = 7.603, SD = 1.332).

**Table 2: Descriptive Statistics for Variables(N = 340)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Sum A | Sum B | Sum C | Sum D | Sum E | Sum F | Sum G |
| Valid | 340 | 340 | 340 | 340 | 340 | 340 | 340 |
| Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | 28.412 | 17.374 | 21.685 | 16.271 | 18.312 | 22.241 | 7.603 |
| Std. Deviation | 4.213 | 2.317 | 3.443 | 2.504 | 3.314 | 3.729 | 1.332 |
| Shapiro-Wilk | 0.944 | 0.884 | 0.979 | 0.909 | 0.969 | 0.974 | 0.930 |
| P-value of Shapiro-Wilk | <.001 | <.001 | <.001 | <.001 | <.001 | <.001 | <.001 |

**Correlation**

Table 3 shows Spearman’s Rho, which indicates the correlation between the following variables “Personal Norms”, “Green Purchase Intention”, “Satisfaction”, “Consumer Scepticism” and “Alternative Evaluation”. We are taking into consideration three levels of significance from .05 .01 and .001, results pertaining to our hypothesis under consideration, indicated that:

‘Sum A ’(Personal Norms) and ‘Sum B’(Green Purchase Intention) have a correlation with, p < 0.001 and rho = 0.303 . (H1)

‘Sum B’(Green Purchase intention) and ‘Sum D’(Satisfaction) have a correlation with, p < 0.001 and rho = 0.303 . (H2)

‘Sum E’(Alternative Evaluation) and ‘Sum D’(Satisfaction) have a correlation with, p < 0.001 and rho = 0.303 . (H3)

‘Sum D’(Satisfaction)) and ‘Sum G’(Consumer Scepticism) have a correlation with, p < 0.001 and rho = 0.303 . (H4)

‘Sum E’(Alternative Evaluation) and ‘Sum G’(Consumer Scepticism) have a correlation with, p < 0.001 and rho = 0.303 . (H5)

**Table 3: Spearman's Correlations**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Spearman's rho |  | p |
|  |  |  |  |  |  |
| Sum A | - | Sum B | 0.627 | \*\*\* | <.001 |
| Sum B | - | Sum D | 0.639 | \*\*\* | <.001 |
| Sum E | - | Sum D | 0.145 | \*\* | 0.007 |
| Sum D | - | Sum G | 0.241 | \*\*\* | <.001 |
| Sum E | - | Sum G | 0.270 | \*\*\* | <.001 |

\*p< .05, \*\*p< .01, \*\*\*p< .001

**T-Test**

**Table 4: Descriptive Statistics for “Personal Norms” Scores by Genders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum A | Female | 239 | 17.397 | 2.349 | 0.152 | 0.135 |
|  | Male | 101 | 17.317 | 2.249 | 0.224 | 0.130 |

Mann-Whitney Score = 12314.000, p = 0.765

**Table 5: Descriptive Statistics for “Personal Norms” Scores by Area**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum A | Rural | 42 | 17.000 | 2.802 | 0.432 | 0.165 |
|  | Urban | 298 | 17.426 | 2.240 | 0.130 | 0.129 |

Mann-Whitney Score = 5902.000, p = 0.546

**Table 6: Descriptive Statistics for “Alternative Evaluation” Scores by Genders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum E | Female | 239 | 16.305 | 2.514 | 0.163 | 0.154 |
|  | Male | 101 | 16.188 | 2.489 | 0.248 | 0.154 |

Mann-Whitney Score = 12549.000, p = 0.554

**Table 7: Descriptive Statistics for “Alternative Evaluation” Scores by Area**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum A | Rural | 42 | 15.714 | 2.916 | 0.450 | 0.186 |
|  | Urban | 298 | 16.349 | 2.436 | 0.141 | 0.149 |

Mann-Whitney Score = 5268.000, p = 0.089

**Table 8: Descriptive Statistics for “Consumer Scepticism” Scores by Genders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum E | Female | 239 | 22.335 | 3.741 | 0.242 | 0.168 |
|  | Male | 101 | 22.020 | 3.709 | 0.369 | 0.168 |

Mann-Whitney Score = 12831.000, p = 0.355

**Table 9: Descriptive Statistics for “Consumer Scepticism” Scores by Area**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | SD | SE | Coefficient of variation |
| Sum A | Rural | 42 | 22.190 | 3.664 | 0.565 | 0.165 |
|  | Urban | 298 | 22.248 | 3.744 | 0.217 | 0.168 |

p = 0.925

**Anova**

**Table 10: Descriptive Statistics for “Personal Norms” Scores by people in different income groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Family Income | N | Mean | SD | SE | Coefficient of variation |
|  |  |  |  |  |  |
| 3 - 8 Lakhs | 105 | 17.248 | 2.409 | 0.235 | 0.140 |
| 8 - 12 Lakhs | 66 | 17.197 | 2.017 | 0.248 | 0.117 |
| Above 12 Lakhs | 88 | 17.489 | 2.202 | 0.235 | 0.126 |
| Below 3 Lakhs | 81 | 17.556 | 2.554 | 0.284 | 0.146 |

p = 0.705

**Table 11: Descriptive Statistics for “Alternative Evaluation” Scores by people in different income groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Family Income | N | Mean | SD | SE | Coefficient of variation |
|  |  |  |  |  |  |
| 3 - 8 Lakhs | 105 | 16.038 | 2.653 | 0.259 | 0.165 |
| 8 - 12 Lakhs | 66 | 16.227 | 2.217 | 0.273 | 0.137 |
| Above 12 Lakhs | 88 | 16.443 | 2.634 | 0.281 | 0.160 |
| Below 3 Lakhs | 81 | 16.420 | 2.397 | 0.266 | 0.146 |

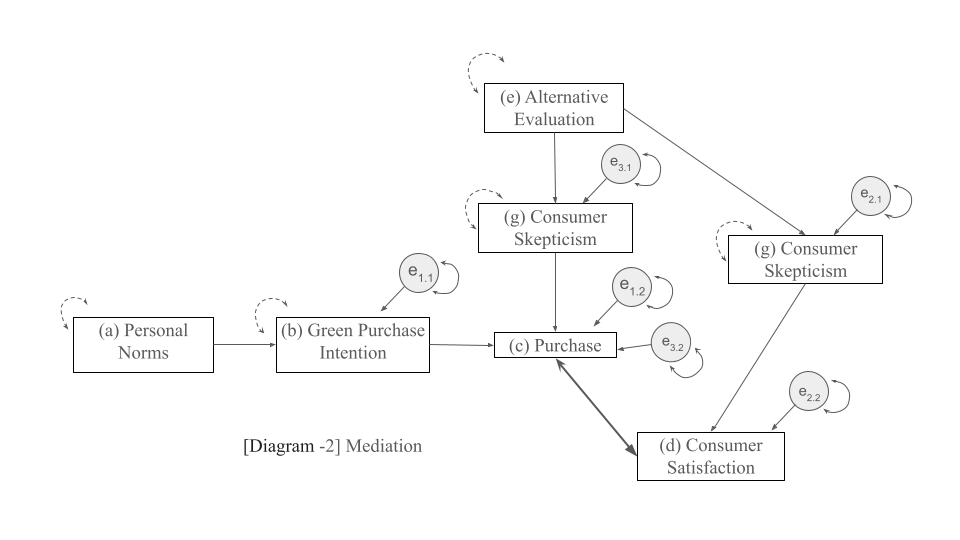
p = 0.654

**Table 12: Descriptive Statistics for “Consumer Scepticism” Scores by people in different income group**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Family Income | N | Mean | SD | SE | Coefficient of variation |
|  |  |  |  |  |  |
| 3 - 8 Lakhs | 105 | 22.162 | 3.453 | 0.337 | 0.156 |
| 8 - 12 Lakhs | 66 | 22.061 | 3.243 | 0.399 | 0.147 |
| Above 12 Lakhs | 88 | 22.989 | 3.929 | 0.419 | 0.179 |
| Below 3 Lakhs | 81 | 22.765 | 4.208 | 0.468 | 0.185 |

p = 0.532

**Mediation**

****

**(A-B-C)** (e₁.₁ - e₁.₂) Multiple regression was used to test the mediation model. Table **13** reveals that (a.) **Personal Norms** positively predict (c.) **Green Purchase**, ß = .274 (95% CI: 0.220, 0.328), z=9.993, p<.001. Furthermore, (b.) **Green Purchase Intention** significantly mediates this relationship, ß= 0.191 (95% CI: 0.143, 0.238), z=7.880, p<.001. It is estimated that (b.) **Green Purchase intention** accounts for 68.71 % of (a.) **Personal Norms**’ Effect on (c.) **GreenPurchase**. Nevertheless, (a.) **Personal Norms** still have a significant positive direct effect, ß= 0.083 (95% CI: 0.029, 0.147), z = 2.581, p = 0.010. (H 9.1)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **TABLE 13.** Results of Mediation Analysis (A-B-C) | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | **95% Confidence Interval** | | | |
| **Effect** |  | |  | | | | **Estimate (**ß**)** | | **Std. Error** | | **z-value** | **p** | **Lower** | | **Upper** | |
| Direct | A |  | → |  | C |  | 0.083 |  | 0.032 |  | 2.581 | 0.010 | 0.020 |  | 0.147 |  |
| Indirect | A → B → C | | | | |  | 0.191 |  | 0.024 |  | 7.880 | < .001 | 0.143 |  | 0.238 |  |
| Total | A |  | → |  | C |  | 0.274 |  | 0.027 |  | 9.993 | < .001 | 0.220 |  | 0.328 |  |
|  |  | | | | | | | | | | | | | | | |
|  | Note. Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | |

**(E-G-D)** (e₂.₁ - e₂.₂) Multiple regression was used to test the mediation model. Table **14** reveals that (e.) **Alternative Evaluation**, positively predicts (d.) **Consumer Satisfaction**, ß = .175 (95% CI: 0.030, 0.32), z=2.359, p = 0.018. Furthermore, (g.) **Consumer Scepticism** significantly mediates this relationship, ß= 0.77 (95% CI: 0.029, 0.126), z=3.127, p = 0.002. It is estimated that (g.) **Consumer Scepticism** accounts for 44 % of (e.) **Alternative Evaluation**’s Effect on (d.) **Consumer Satisfaction**. It’s important to note that (e.) **Alternative Evaluation** have no significant positive direct effect, ß= 0.097 (95% CI: -0.049, 0.243), z = 1.303, p = 0.193. (H 9.2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **TABLE 14.** Results of Mediation Analysis (E-G-D) | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | **95% Confidence Interval** | | | |
| **Effect** |  | |  | | | | **Estimate (**ß**)** | | **Std. Error** | | **z-value** | **p** | **Lower** | | **Upper** | |
| Direct | E |  | → |  | D |  | 0.097 |  | 0.075 |  | 1.303 | 0.193 | -0.049 |  | 0.243 |  |
| Indirect | E → G → D | | | | |  | 0.077 |  | 0.025 |  | 3.127 | 0.002 | 0.029 |  | 0.126 |  |
| Total | E |  | → |  | D |  | 0.175 |  | 0.074 |  | 2.359 | 0.018 | 0.030 |  | 0.320 |  |
|  |  | | | | | | | | | | | | | | | |
|  | Note. Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | |

**(E-G-C)** (e₃.₁ - e₃.₂) Multiple regression was used to test the mediation model. Table **15** reveals that (e.) **Alternative Evaluation**, positively predicts (c.) **Green Purchase**, ß = .097 (95% CI: 0.042, 0.153), z=3.426, p<.001. Furthermore, (g.) **Consumer Scepticism** significantly mediates this relationship, ß= 0.021 (95% CI: 0.004, 0.037), z=2.445, p = 0.014. It is estimated that (g.) **Consumer Scepticism** accounts for 22 % of (e.) **Alternative Evaluation**’ Effect on (c.) **GreenPurchase**. Nevertheless, (e.) **Alte]]]]]]]rnative Evaluation** still has a significant positive direct effect, ß= 0.076 (95% CI: 0.020, 0.133), z = 2.641, p = 0.008. (H 9.3)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **TABLE 15.** Results of Mediation Analysis (E-G-C) | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | **95% Confidence Interval** | | | |
| **Effect** |  | |  | | | | **Estimate (**ß**)** | | **Std. Error** | | **z-value** | **p** | **Lower** | | **Upper** | |
| Direct | E |  | → |  | C |  | 0.076 |  | 0.029 |  | 2.641 | 0.008 | 0.020 |  | 0.133 |  |
| Indirect | E → G → C | | | | |  | 0.021 |  | 0.008 |  | 2.445 | 0.014 | 0.004 |  | 0.037 |  |
| Total | E |  | → |  | C |  | 0.097 |  | 0.028 |  | 3.426 | < .001 | 0.042 |  | 0.153 |  |
|  |  | | | | | | | | | | | | | | | |
|  | Note. Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | |

**Discussion**

Global consumer utilisation of products and services has increased significantly during the past 20 years, resulting in severe environmental harm and the depletion of natural resources (Chen & Chai, 2010). As a result, "sustainable development" has emerged, which has further promoted eco-friendly consumption.

The first hypothesis suggested that there is no significant correlation between “Personal Norms” and “Green Purchase Intention.” However, the rejection of this hypothesis reveals a significant positive correlation between “Personal Norms” and “Green Purchase intention”. This implies that individuals who scored high on Personal Norms also tend to score high on Green purchase intention.

The second hypothesis suggested that there is no significant correlation between “Green Purchase Intention” and “Satisfaction”. However, the rejection of this hypothesis reveals a significant positive correlation between “Green Purchase Intention” and “Satisfaction”. This implies individuals who scored high on Green purchase intention also tend to score high on Satisfaction of the outcome.

The third hypothesis suggested that there is no significant correlation between “Alternative Evaluation” and “Satisfaction”. However, the rejection of this hypothesis reveals a significant positive correlation between “Alternative Evaluation” and “Satisfaction”. This implies individuals who scored high on Alternative Evaluation also tend to score high on Satisfaction.

The fourth hypothesis suggested that there is no significant correlation between “Satisfaction” and “Consumer Scepticism”. However, the rejection of this hypothesis reveals a significant positive correlation between “Satisfaction” and “Consumer Scepticism”. This implies individuals who scored high on Satisfaction also tend to score high on Consumer Scepticism.

The fifth hypothesis suggested that there is no significant correlation between “Alternative Evaluation” and “Consumer Scepticism”. However, the rejection of this hypothesis reveals a significant positive correlation between “Alternative Evaluation” and “Consumer Scepticism”. This implies individuals who scored high on Alternative Evaluation also tend to score high on Consumer Scepticism.

Hypothesis 6.1 suggests that there would be no significant difference in Personal Norms between Gender Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Personal Norms between different Gender Groups. This implies that Gender Groups do not play a role in influencing individuals' Personal Norms.

Hypothesis 6.2 suggests that there would be no significant difference in Personal Norms between Areas of residence. As we failed to reject this hypothesis, it reveals that there is no significant difference in Personal Norms between different age groups. This implies that age groups do not play a role in influencing individuals' Personal Norms.

Hypothesis 6.3 suggests that there would be no significant difference in Personal Norms between Income Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Personal Norms between different Income Groups. This implies that income does not play a role in influencing individuals' Personal Norms.

Hypothesis 7.1 suggests that there would be no significant difference in Alternative Evaluation between Gender Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Alternative Evaluation between different Gender Groups. This implies that Gender Groups do not play a role in influencing individuals' Alternative Evaluation.

Hypothesis 7.2 suggests that there would be no significant difference in Alternative Evaluation between Areas of Residence. As we failed to reject this hypothesis, it reveals that there is no significant difference in Alternative Evaluation between different Areas of Residence. This implies that Areas of Residence do not play a role in influencing individuals' Alternative Evaluations.

Hypothesis 7.3 suggests that there would be no significant difference in Alternative Evaluation between Income Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Alternative Evaluation between different Income Groups. This implies that Income Groups do not play a role in influencing individuals' Alternative Evaluation.

Hypothesis 8.1 suggests that there would be no significant difference in Consumer Scepticism between Gender Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Consumer Scepticism between different Gender Groups. This implies that Gender Groups do not play a role in influencing individuals' Consumer Scepticism.

Hypothesis 8.2 suggests that there would be no significant difference in Consumer Scepticism between Areas of Residence. As we failed to reject this hypothesis, it reveals that there is no significant difference in Consumer Scepticism between different Areas of Residence. This implies that Areas of Residence do not play a role in influencing individuals' Consumer Scepticism.

Hypothesis 8.3 suggests that there would be no significant difference in Consumer Scepticism between Income Groups. As we failed to reject this hypothesis, it reveals that there is no significant difference in Consumer Scepticism between different Income Groups. This implies that Income Groups do not play a role in influencing individuals' Consumer Scepticism.

Hypothesis 9.1 suggests that the relationship between personal norms and Green purchase is not mediated by Green Purchase intention; however, the rejection of this hypothesis indicates that Green Purchase intention significantly does mediate this relation. Green Purchase intention accounts for 68.71 % of Personal Norms’ Effect on Green Purchase.

Hypothesis 9.2 suggests that the relationship between alternative evaluation and purchase outcome (satisfaction) is not mediated by consumer scepticism. However, rejection of this hypothesis suggests that consumer scepticism significantly does mediate this relation. Consumer Scepticism accounts for 44 % of Alternative Evaluation’s Effect on Consumer Satisfaction.

Hypothesis 9.3 suggests that the relationship between Alternative evaluation and Green purchase is not mediated by consumer scepticism; however, rejection of this hypothesis suggests that consumer scepticism significantly does mediate this relation. Consumer scepticism accounts for 22% of the alternative evaluation’s effect on green purchases.

**Conclusion**

The paper focuses on the aspects of the method of purchase and what drives one towards clarity on what to buy. All the hypotheses point in the direction that personal norms affect the individual intent to purchase green products, along with how an individual comes to purchase certain products that are greener than others in any given market. The process of purchasing and evaluating choices was also included in the framework. The correlation between personal norms and green purchase intention that affects the inevitable purchase of green products, and given that the first hypothesis was rejected, it displays a positive correlation between these variables. This leads to the second part of the framework, the decision-making process. Purchasing influences the satisfaction or dissatisfaction that consumers feel toward any green product. Based on the result, they may feel entirely dissatisfied, or dissatisfaction may prompt scepticism and lead them to consider alternatives. This process can repeat in a cycle until the consumer is satisfied with a given green product. The correlation between consumer scepticism due to greenwashing and the evaluation of alternatives implies the willingness to reevaluate products and move through scepticism. It involves not just offering environmentally friendly products and materials for consumption but also ensuring that the effects of consumption on the environment are mitigated. Green buying is important for protecting the environment. It describes consumer purchasing practices that, to meet demands and enhance quality of life, reduce the creation of pollutants and harmful substances as well as the depletion of natural resources. (Shang et al., 2024)

**Limitations**

The way in which respondents understand the questions and response alternatives may vary depending on their individual circumstances. For instance, different people may interpret the option "somewhat agree" differently. Thanks to convenient sampling, Vadodara students make up the majority of the sample. Furthermore, the sample lacks diversity because a higher percentage of individuals reside in cities than in rural areas. The study's inclusion criteria precluded individuals under the age of 18 and members of the LGBTQ+ community, hindering any meaningful examination of this group. Further research will be necessary to make broader generalisations, as the bulk of respondents are Indian nationals.

**Implications**

Personal norms may significantly shape consumer choices, an area that requires further research, as it remains relatively unexplored. Understanding this connection could provide companies with valuable insights into consumer behaviour.

Growing consumer interest in sustainable choices, with a willingness to adopt greener alternatives if they are affordable. This suggests that companies could benefit from making their eco-friendly products more accessible and cost-effective to meet this demand.

Greenwashing risks breaking trust in green marketing, fostering consumer scepticism and casting doubt on sustainability initiatives.

With rising concern for sustainability, consumers are often willing to pay a premium for eco-friendly products. However, deceptive greenwashing tactics may shift consumer behaviour, ultimately harming companies that engage in such practices.

Companies exposed for greenwashing can face lasting damage to their reputation. Negative publicity and consumer backlash may lead to a decline in trust, affecting both brand image and market share.

In contrast, companies that authentically invest in sustainable practices and transparently communicate these efforts have the opportunity to build customer trust and loyalty, enhancing brand perception, satisfaction, and long-term marketplace success. Greenwashing outcomes could also lead to a greater understanding among companies of consumer expectations and prompt more thoughtful, genuine approaches to green marketing practices.

The study suggests that consumer scepticism toward greenwashing may fluctuate based on personal values, like a strong commitment to environmental protection. This implies that consumers with high personal standards may become more discerning in their purchases, gravitating toward trusted brands.

The results highlight a potential need for further exploration into how consumer scepticism and personal norms jointly shape purchasing decisions, suggesting this area could benefit from a more focused study. Thus, pointing to a potential need for new psychological models that examine the cognitive processes behind consumer reactions to greenwashing, offering deeper insights into the mental mechanisms at play.

**Data Access**

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available because they contain information that could compromise the privacy of research participants.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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**References**

Aaker, D. A., & Keller, K. L. (1990). Consumer evaluations of brand extensions. Journal of marketing, 54(1), 27-41. <https://journals.sagepub.com/doi/abs/10.1177/002224299005400102>

Aji, H. M., & Sutikno, B. (2015, December). The extended consequence of Greenwashing: Perceived consumer Scepticism. https://www.researchgate.net/publication/296700585\_The\_Extended\_Consequence\_of\_Greenwashing\_Perceived\_Consumer\_Scepticism

Ajzen, I. (1991). The Theory of planned behaviour. Organizational behaviour and Human Decision Processes. <https://doi.org/10.4135/9781446249215.n22>

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. Journal of consumer research, 20(4), 644-656. <https://academic.oup.com/jcr/article-abstract/20/4/644/1798609>

Bansal, H. S., & Voyer, P. A. (2000). Word-of-mouth processes within a services purchase decision context. Journal of service research, 3(2), 166-177. <https://journals.sagepub.com/doi/abs/10.1177/109467050032005>

Bhrambhatt, V. (2023). Personality Assessment of Green Consumers using the Big Five Model (OCEAN). <https://zenodo.org/records/10314871>

Braga, S., Martínez, M. P., Correa, C. M., Moura-Leite, R. C., & Da Silva, D. (2019, July 15). Greenwashing effect, attitudes, and beliefs in green consumption. RAUSP Management Journal. https://www.scielo.br/j/rmj/a/j8KWHs8k4XfndmpPCcG9f6f/?lang=en#

Brown, J. J., & Reingen, P. H. (1987). Social ties and word-of-mouth referral behaviour. Journal of Consumer research, 14(3), 350-362. <https://academic.oup.com/jcr/article-abstract/14/3/350/1820141>

Chan, R. Y. (2001). Determinants of Chinese consumers' green purchase behaviour. Psychology & marketing, 18(4), 389-413. <https://doi.org/10.1002/mar.1013>

Chandra, A. (n.d.). The Role of anticipated Pride and Guilt on Pro Environmental behaviour Based on the Norm Activation Model (NAM): A study based on green-labeled chicken sold in major supermarket chains in the Netherlands. Faculty of Management, Radboud University, Nijmegen, the Netherlands. https://theses.ubn.ru.nl/server/api/core/bitstreams/99bd1cd2-c1e8-4ba8-8c36-02711cb1cfce/content

Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers’ perspective. Management science and engineering, 4(2), 27-39

Chen, Y. S., & Chang, C. H. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. Journal of business ethics, 114, 489-500.

Emekci, S. (2019). Green consumption behaviours of consumers within the scope of TPB. Journal of Consumer Marketing, 36(3), 410-417. <https://www.emerald.com/insight/content/doi/10.1108/JCM-05-2018-2694/full/html>

Engel, J.F., Blackwell, R.D., & Miniard, P.W., (1995). Consumer behaviour, 8th ed. Fort Worth: Dryden Press.

Foreh, M. R., & Grier, S. (2003). When is honesty the best policy? The effect of stated company intent on consumer scepticism. Journal of consumer psychology, 13(3), 349-356. <https://doi.org/10.1207/S15327663JCP1303_15>

Gay, R., Charlesworth, A., & Esen, R. (2010). Online marketing: A customer-led approach. Oxford university press. <https://books.google.co.in/books?hl=en&lr=&id=wLipF4vctU4C&oi=fnd&pg=PR11&dq=gay+r+charlesworth&ots=Y804Gl8qEF&sig=MQ_SRRuLRBFHrukRpCb2pB4fs-A&redir_esc=y#v=onepage&q=gay%20r%20charlesworth&f=false>

Goh, S. K., & Balaji, M. S. (2016). Linking green scepticism to green purchase behaviour. Journal of Cleaner Production, 131, 629-638. <https://doi.org/10.1016/j.jclepro.2016.04.122>

Gupta , V. (2022, January 16). Enchancing Green Product Purchase behaviour: The role of Green Satisfaction and Green Loyalty. International Journal on Customer Relations. https://www.researchgate.net/publication/357870288\_ENCHANCING\_GREEN\_PRODUCT\_PURCHASE\_ BEHAVIOUR\_THE\_ROLE\_OF\_GREEN\_SATISFACTION\_AND\_GREEN\_LOYALTY

Harland, P., Staats, H., & Wilke, H. A. (2007). Situational and personality factors as direct or personal norm mediated predictors of pro-environmental behaviour: Questions derived from norm-activation theory. Basic and applied social psychology, 29(4), 323-334. <https://www.tandfonline.com/doi/abs/10.1080/01973530701665058>

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. International Strategic management review, 3(1-2), 128-143.

Khandelwal, M., Sharma, A., & Jain, V. (2019). Greenwashing: A study on the effects of greenwashing on consumer perception and trust build-up. Research Review International Journal of Multidisciplinary, 4(1), 607-612.

Li , J., Han , J., & Qiu, Z. (2021, May 24). An empirical study on greenwashing and consumers’ ... https://www.diva-portal.org/smash/get/diva2:1561441/FULLTEXT01.pdf

Lyon, T. P., & Maxwell, J. W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. Journal of economics & management strategy, 20(1), 3-41.

Mimouni Chaabane, A., & Parguel, B. (2016). The double-edge effect of retailers’ cause-related marketing: When scepticism cools the warm-glow effect. International Journal of Retail & Distribution Management, 44(6), 607-626. <https://doi.org/10.1108/IJRDM-08-2015-0126>

Mishra, Dr. O. (2018, October). (PDF) criteria for evaluation of alternatives in online consumer decision-making process. ELK ASIA PACIFIC JOURNAL OF MARKETING & RETAIL MANAGEMENT . https://www.researchgate.net/publication/343904334\_CRITERIA\_FOR\_EVALUATION\_OF\_ALTERNATIVES\_IN\_ONLINE\_CONSUMER\_DECISION-MAKING\_PROCESS

Mishra, O. (2018). Criteria for evaluation of alternatives in online consumer decisionmaking process. Elk Asia Pacific Journal of Marketing and Retail Management, 9(4), 75-100. <https://www.researchgate.net/publication/343904334_CRITERIA_FOR_EVALUATION_OF_ALTERNATIVES_IN_ONLINE_CONSUMER_DECISION-MAKING_PROCESS>

Muruganantham, G., & Bhakat, R. S. (2013). A review of impulse buying behaviour. International journal of marketing studies, 5(3), 149. [https://www.researchgate.net/profile/Ravi-Bhakat/publication/280298147\_A\_Review\_of\_Impulse\_Buying\_ behaviour/links/55ef157108aedecb68fd96b9/A-Review-of-Impulse-Buying- behaviour.pdf](https://www.researchgate.net/profile/Ravi-Bhakat/publication/280298147_A_Review_of_Impulse_Buying_Behavior/links/55ef157108aedecb68fd96b9/A-Review-of-Impulse-Buying-Behavior.pdf)

Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad scepticism: The consequences of disbelief. Journal of advertising, 34(3), 7-17. <https://doi.org/10.1080/00913367.2005.10639199>

Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. Environment: science and policy for sustainable development, 48(5), 22-36. <https://doi.org/10.3200/ENVT.48.5.22-36>

Pechmann, C., & Ratneshwar, S. (1991). The use of comparative advertising for brand positioning: Association versus differentiation. Journal of Consumer Research, 18(2), 145-160. <https://academic.oup.com/jcr/article-abstract/18/2/145/1786796>

Rao, A. R., & Monroe, K. B. (1988). The moderating effect of prior knowledge on cue utilization in product evaluations. Journal of consumer research, 15(2), 253-264. <https://academic.oup.com/jcr/article-abstract/15/2/253/1841505>

Romani, S., Grappi, S., & Bagozzi, R. P. (2016). Corporate socially responsible initiatives and their effects on consumption of green products. Journal of Business Ethics, 135, 253-264.

Scanlan, S. J. (2017). Framing fracking: scale-shifting and greenwashing risk in the oil and gas industry. Local Environment, 22(11), 1311-1337. <https://doi.org/10.1080/13549839.2017.1345877>

Seele, P., & Gatti, L. (2017). Greenwashing revisited: In search of a typology and accusation‐based definition incorporating legitimacy strategies. Business strategy and the environment, 26(2), 239-252. <https://doi.org/10.1002/bse.1912>

Shang, W., Zhu, R., Liu, W., & Liu, Q. (2024, May 31). Understanding the influences on green purchase intention with moderation by Sustainability Awareness. MDPI. https://www.mdpi.com/2071-1050/16/11/4688

Siano, A., Vollero, A., Conte, F., & Amabile, S. (2017). “More than words”: Expanding the taxonomy of greenwashing after the Volkswagen scandal. Journal of business research, 71, 27-37. <https://doi.org/10.1016/j.jbusres.2016.11.002>

Solomon, M., (2004). Consumer behaviour: Buying, Having and Being, 6th Edition, FT Prentice Hall Upper Saddle River, N.J.

Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. Human ecology review, 81-97. <https://www.jstor.org/stable/24707060>

Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding Green consumer behaviour among young urban Indian consumers through the lens of Theory of Planned behaviour. Journal of cleaner production, 183, 46-55. <https://doi.org/10.1016/j.jclepro.2018.02.097>

TerraChoice (2010) The sins of greenwashing: home and family edition. <http://sinsofgreenwashing.org/findings/the-seven-sins/>

Turaga, R. M. R., Howarth, R. B., & Borsuk, M. E. (2010). Pro‐environmental behaviour: Rational choice meets moral motivation. Annals of the New York Academy of Sciences, 1185(1), 211-224. <https://nyaspubs.onlinelibrary.wiley.com/doi/abs/10.1111/j.1749-6632.2009.05163.x>

Zinkhan, G. M., & Carlson, L. (1995). Green advertising and the reluctant consumer. Journal of advertising, 24(2), 1-6. <https://doi.org/10.1080/00913367.1995.10673471>

Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011). The influence of scepticism on green purchase behaviour. International Journal of Business and Social Science, 2(13), 189-197.

Kreczmańska-Gigol, K., & Gigol, T. (2022). The impact of consumers’ green scepticism on the purchase of energy-efficient and environmentally friendly products. Energies, 15(6), 2077.

Syadzwina, M. N., & Astuti, R. D. (2021, March). Linking green scepticism to green purchase behaviour on personal care products in Indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 716, No. 1, p. 012045). IOP Publishing.

González-Rodríguez, M. R., Díaz-Fernández, M. C., & Font, X. (2020). Factors influencing willingness of customers of environmentally friendly hotels to pay a price premium. International Journal of Contemporary Hospitality Management, 32(1), 60–80.

Moisander, J. (2007). Motivational complexity of green consumerism. International journal of consumer studies, 31(4), 404-409.

Ritter, Á. M., Borchardt, M., Vaccaro, G. L., Pereira, G. M., & Almeida, F. (2015). Motivations for promoting the consumption of green products in an emerging country: exploring attitudes of Brazilian consumers. Journal of Cleaner Production, 106, 507-520.

Testa, F., Pretner, G., Iovino, R., Bianchi, G., Tessitore, S., & Iraldo, F. (2021). Drivers to green consumption: A systematic review. Environment, development and sustainability, 23, 4826-4880.

Irianto, H. (2015). Consumers' attitude and intention towards organic food purchase: An extension of theory of planned behaviour in gender perspective. International journal of management, economics and social sciences, 4(1), 17-31.