Journal of Environmental Management 347 (2023) 119106

Contents lists available at ScienceDirect

Journal of Environmental Management

journal homepage: www.elsevier.com/locate/jenvman

Research article

Sustainable consumption behaviour: Mediating role of pro-environment self-identity, attitude, and moderation role of environmental protection emotion

Rambabu Lavuri [b], David Roubaud [a,*], Oksana Grebinevych [a]

[a] Montpellier Business School, Montpellier, France
[b] Indian Institute of Management - Jammu, India

ARTICLE INFO

Handling editor: Lixiao Zhang

Keywords:
Altruistic value
Social consumption
Egoistic value
Pro-environmental self-identity
Environmental protection emotion
Sustainable behaviour

ABSTRACT

This study aims to examine how these factors—egoistic and altruistic values and social consumption motivation-stimulus factors—influence sustainable consumption behaviour (response factor), the mediating role of pro-environmental self-identity and attitude (organism factor), and the moderating effect of environmental protection emotion. We used the stimulus organism response theory to gain a solid and holistic understanding of the concept. We collected 328 original surveys from Indian customers who recently purchased sustainable products via convenience and purposive sampling, and we analysed the data by using structural equation modelling. Intriguingly, the results show that (a) stimulus factors, such as egoistic and altruistic values and social consumption motivation, had a positive influence on pro-environment self-identity and attitude and sustainable consumption behaviour; (b) pro-environment self-identity had a positive effect on attitude; (c) mediation factors (pro-environment self-identity and attitude) had a significantly positive mediation relationship between stimulus and response factors; and (d) environmental protection emotion significantly moderated the relationship between stimulus, organism factors, and response factors. The study contributes to the current body of knowledge in the area of sustainable marketing by examining the rapidly growing phenomenon of sustainable consumer behaviour.

1. Introduction

Sustainable consumerism has gained significant societal significance as individual's exhibit growing concern for the environment and heightened awareness of its degradation (Rambabu et al., 2023). The concept of sustainability posits that emerging economies hold the key to global economic development and are poised to become the champions of ethical consumption and production (Dermody et al., 2018). Enterprises with a vested interest in sustainable marketing methodologies for the general populace may benefit from assessing the proclivities and inclinations of consumers towards sustainable purchases (Ajibade and Boateng, 2021; Nafees et al., 2022). The current state of the public's environmental awareness presents a propitious opportunity for enterprises to introduce and proliferate the distribution of environmentally sustainable merchandise (Gulzari et al., 2022). The present study centres on the Indian market due to India's prioritization of consumer-oriented and resource-intensive economic growth and its dedication to sustainability (Kaur et al., 2022a; Lavuri et al., 2023).

Prior research has demonstrated that consumers residing in developing nations exhibit a greater propensity to engage in ecologically conscious buying behaviors than their counterparts in more advanced economies (Dermody et al., 2018). Notwithstanding, a dearth of comprehension persists concerning the impetus behind pro-environmental self-identity and the function that environmentally protective emotions assume in fostering sustainable consumerism within the burgeoning Indian market (Han et al., 2022; Lavuri et al., 2023; Rambabu et al., 2023). Despite the prevalence of research endeavours delving into the ramifications of egoistic and altruistic incentives on product assessments and ethical conduct (Mazhar et al., 2022), comparatively scant emphasis has been placed on the impact of human values in shaping these occurrences (Grappe et al., 2022). Furthermore, ethical consumerism places a higher value on human well-being than environmental preservation (Yin et al., 2022). Therefore, this study argues that identifying key factors contributing to sustainable behaviour

* Corresponding author.
E-mail addresses: rambabu@iimj.ac.in (R. Lavuri), d.roubaud@montpellier-bs.com (D. Roubaud), o.grebinevych@montpellier-bs.com (O. Grebinevych).

https://doi.org/10.1016/j.jenvman.2023.119106
Received 26 January 2023; Received in revised form 7 June 2023; Accepted 30 August 2023
Available online 6 October 2023

can provide new insights into the existing literature on sustainable consumption behaviour in the Indian context; and, due to the fundamental differences between egoistic and altruistic ideals in both theory and practice, their combination leads to inherent conflict and negative consequences (Rambabu et al., 2023). The current circumstances have led scholars to advocate for the implementation of novel conceptual frameworks to investigate the subject of sustainable behavior (Hassan et al., 2016; Lavuri et al., 2023a).

One of the strategies that have not received limited attention is the examination of pro-environmental self-identity (PESI) and social consumption motivations (SCM) as a continuous process of self-construction. This research is unique in its focus on the impact of PESI on adopting sustainable purchasing practices in the developing markets of India. Upon closer examination of the literature, it becomes apparent that there has been limited focus on the exploration of egoistic value (EV), altruistic value (AV), and social consumption motivation (SCM) as potential factors that may influence both PESI and individual attitude (ATT) towards sustainability in emerging markets. Furthermore, the moderating effect of environmental protection emotions (EPE) has yet to be fully considered. Moreover, extant literature has assessed sustainable consumption behaviour through the lens of the stimulus organism response (SOR) hypothesis (Fig. 1). We fill this knowledge gap by examining the following questions:

RQ1. Do the stimulus factors (egoistic value, altruistic value, and social consumption motivation) have a positive effect on the organism (Pro-Environment Self-Identity and attitude towards sustainability) and the response factor (Sustainable Consumption Behaviour)?

RQ2. Do the mediating factors (Pro-Environment Self-Identity and attitude towards sustainability) positively affect Sustainable Consumption Behaviour?

RQ3. Do the moderators (Environmental Protection Emotion) positively associate with the stimulus and response factors?

The S–O-R paradigm is employed, which has the advantage of considering factors external to an individual that may affect or limit their ability to act on their goals. By proposing and experimentally testing a complete paradigm centred on the human impacts on the 'action-readiness' of PESI in Indian emerging markets, this research makes essential strides in understanding and bolstering sustainable consumer buying in developing countries. The study's results will help eco-friendly businesses better comprehend their customers' sustainable purchasing aspirations and create innovative strategies to boost green sales.

2. Theoretical underpinning

2.1. Stimulus–organism–response (S–O-R) theory

The S–O-R theory offers a theoretical foundation for analysing consumer behaviour. A person's reaction to every action is impacted by many stimuli and is determined by how they process them (Mehrabian and Russell, 1974). *Stimulus* refers to the influence that arouses the individual (Lavuri et al., 2022). Extant research has studied various stimuli like sensory appeal and ecological welfare, such as (1) motivations (building interpersonal relationships, entertainment, information seeking, brand likeability, and incentives) for participation on social media sites (Kamboj et al., 2018); (2) conflicting reviews about the same restaurant, combining text and graphic content (Bigné et al., 2020), smartwatch characteristics (Chou et al., 2016); and (3) fashion item characteristics (Kaur et al., 2022a; Lavuri et al., 2022). In our study, the stimuli are the EV, AV, and SCM associated with the sustainable consumption behaviour.

On the other hand, *organism* refers to the customers' affective and cognitive condition, consisting of the entire processes that intervene between stimuli and customers' response (Lavuri et al., 2022). Upon receiving the stimuli, customers process it into helpful and meaningful information to help them decide. Internal organism factors focus on the internal processes of the consumer (Rambabu et al., 2023). They elucidate the 'psychological core' of the consumer (Jacoby, 2002). This may include knowledge, belief, evaluation of options, and adoption (Lavuri et al., 2023a). Pro-environmental self-identity and attitude towards sustainability are the main predictors of environmentally sustainable consumption in the emerging market; hence, they are at the centre of

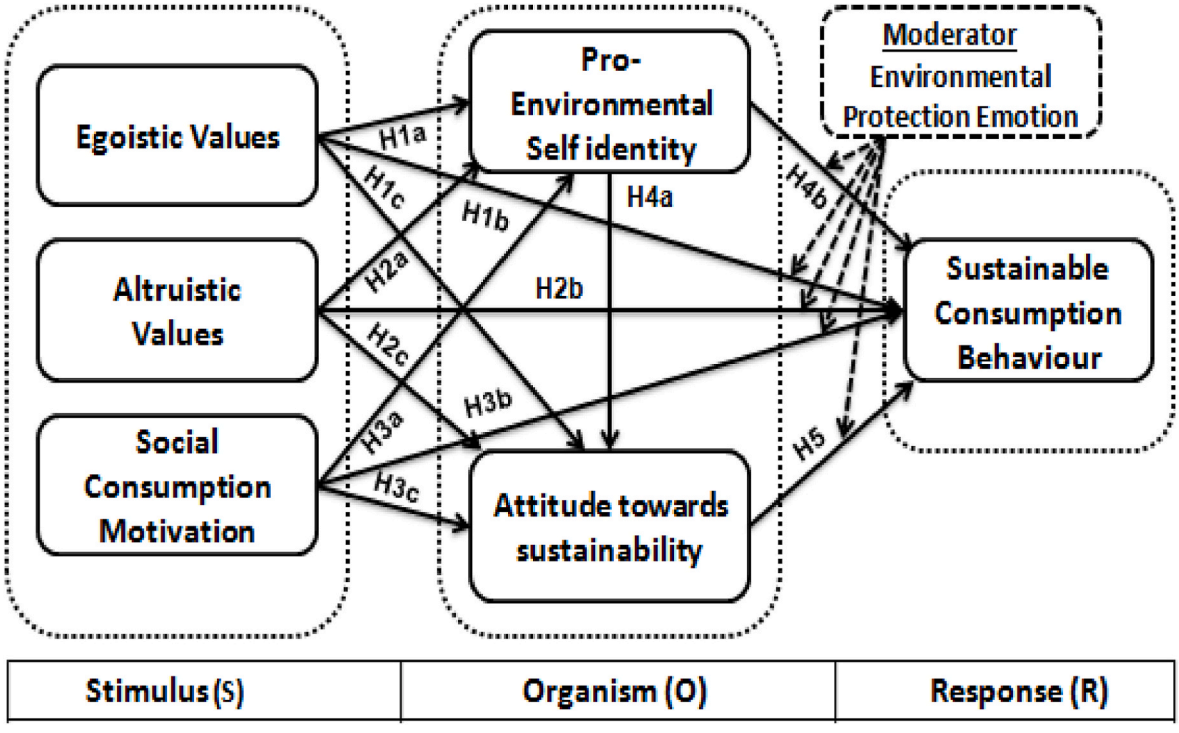

Fig. 1. Original research model.

this research as organism factors. The organism will determine the *response*, which is the externally detectable outcome (Jacoby, 2002). Once the stimuli create an organism, the consumer responds by developing an intention (favourable/unfavourable) or behaviour. A favourable response to the processing of the stimuli is purchase intention or behaviour. The intention is a valid predictor of the actual behaviour (Rambabu et al., 2023). Purchase intention can be regarded as a reflection of consumers' behavioural outcomes/responses regarding purchase intention (Lavuri, 2022b) and willingness to buy (Nagoya et al., 2021) as their responses in the S–O-R model.

To address the research gaps mentioned above and to further the knowledge needed to gain a comprehensive understanding, the current study examined the multi-dimensional role of values such as EV, AV, and the SCM (stimulus), and their impact on sustainable consumption behaviour (response) through pre-environmental self-identity and attitude (organism) towards sustainability moderated by environmental protection emotion.

The study is relevant in the current context because of the heightened importance of sustainability in consumption. This study also addresses contradictions in the existing literature about pre-environmental self-identity and whether consumers prefer sustainable consumption or not. A comprehensive research model was developed using the S–O-R paradigm and was tested in a large cross-sectional study from India (Fig. 1). This study has a significant theoretical contribution in extending the body of knowledge and practical implications having nuanced managerial insights.

3. Literature and hypotheses development

3.1. Egoistic values (EVs)

Previous research has shown that consumer health concerns might impact their attitudes toward environmentally sustainable products and services (Lavuri, 2022b; Tewari et al., 2022), and that a larger share of health-conscious customers would engage in pro-environmental behaviours (Talwar et al., 2021). Egoistic value refers to a pro-self-concept approach that indicates a user's or a family's care for their well-being (Yang et al., 2022). A person's egoistic motives, such as better health and a greater standard of living, may inspire them to participate in ecologically sustainable activities (Verma et al., 2019). Several research studies have shown a robust connection between values (both egoistic and altruistic) and pro-environmental behaviour (Dermody et al., 2018; Rambabu et al., 2023), and these values improve environmental sustainability in purchasing decisions (Lavuri et al., 2023a). These values are important guiding factors for consumers, especially for pro-environmental behaviours (de Groot et al., 2012). However, Dermody et al.'s (2018) study indicated that egoistic ideals negatively influence pro-environmental self-identification. However, an egoistic value significantly improves an individual's attitude toward environmentally beneficial actions and natural-made products (Lavuri, 2022a; Sultan et al., 2020). Furthermore, consumers who value health care are more likely to engage in sustainable environmental behaviours (Kim et al., 2022; Lavuri, 2022b). Egoistic values are essential and serve as a foundation for one's self-identity and enhance long-term sustainable behaviour (Crompton and Kasser, 2010). Since there is a dearth of literature on pro-environmental self-identity, the current investigation probes the relationship between egoistic values, pro-environmental self-identity, and attitudes towards sustainable consumption behaviour. Therefore, we posit the following:

H1a. Egoistic values have a positive effect on the individual Pro-environment self-identity.

H1b. Egoistic values have a positive effect on the individual attitude towards sustainability.

H1c. Egoistic values have a positive effect on the individual Sustainable consumption behaviour.

3.2. Altruistic values (AVs)

In recent years, altruistic values and sustainable behaviour have gained prominence (Lavuri, 2022b). Existing literature reveals that both egoistic and altruistic values have a significant role in shaping consumer behaviour (Dermody et al., 2018; Kautish et al., 2019). Environmental issues express altruistic beliefs and concepts, which are critical for shaping and strengthening sustainable consumption perspectives (Heberlein, 1972; Lavuri et al., 2023a). Consumers are becoming more environmentally conscious due to their altruistic values, shown in their efforts to address environmental problems via green purchasing (Zou and Chan, 2019). They are becoming more cognizant of the packaging they often use (Yang et al., 2022). A strong association exists between altruistic values and pro-environmental behaviour (Dermody et al., 2018); leading to more sustainable purchases (Rambabu et al., 2023). It encourages pro-environmental self-identification and isinfluenced more by altruistic principles than egoistic ones (de Groot et al., 2012); this represents the contrast between altruistic ideals, which are mutually beneficial and transcendent, and the egoistic, instrumental, and ego-boosting values many aspire to (Crompton and Kasser, 2010). Altruistic values are increasingly popular among customers, and they benefit purchasers' attitudes toward sustainable goods (Lavuri, 2022b; Sultan et al., 2020). Given the scarcity of research on the topic, the present study attempts to fill the gap by examining the link between altruistic ideals, pro-environmental self-identity, and attitudes toward sustainable consumption behaviour. Therefore, we posit the following:

H2a. Altruistic values have a positive effect on the individual Pro-environment self-identity.

H2b. Altruistic values have a positive effect on the individual attitude towards sustainability.

H2c. Altruistic values have a positive effect on the individual sustainable consumption behaviour.

3.3. Social consumption motivation (SCM)

Social consumption motivation, as a social interaction, correlates with social stature and the societal aspect of identity included within prominent consumption (Fitzmaurice and Comegys, 2006). It is highly associated with social status and image. Consumers are motivated to buy things by the opinions of their close friends and family, and they do so to boost their standing in social circles by displaying their success and contentment (Banerjee et al., 2007). Social consumption motivation concerns the product's brand image and the customers who buy branded things (Kaur et al., 2022b). The pro-environment self-identity is motivated to choose the proper items by social interactions and environmental clues (Gatersleben et al., 2014). Social consumption motivation has indirect and direct effects on sustainable consumption, whereas pro-environment self-identity has been shown to partially mediate the interaction of social consumption motivation and sustainable consumption (Dermody et al., 2015). It positively impacts sustainable purchasing because of its social prominence when expressing a pro-environmental mindset (Kaur et al., 2022b). Research on Social consumption motivation, Pro-environment self-identity, and attitudes towards sustainable consumption was scarce. This research investigates the interaction between social consumption motivation, Pro-environment self-identity, and attitude towards sustainability to fill this void. Therefore, we posit the following:

H3a. Social consumption motivation has a positive effect on the individual Pro-environment self-identity.

H3b. Social consumption motivation has a positive effect on the individual attitude towards Sustainability.

H3c. SCM has a positive effect on the individual Sustainable consumption behaviour.

3.4. Pro-environmental self identity (PESI)

Pro-environment self-identity denotes people with a strong identity that motivates them to do ecologically sound activities (van der Werff et al., 2013). It is a powerful motivation to support social issues (Bryan et al., 2013), and it plays a crucial role in knowing the reasons behind consumers' (un)sustainable consumption patterns (Gatersleben et al., 2014). Literature corroborates the relationship between identification and consumption, recognising that purchasing is fundamental to shoppers' desire to construct or improve their self-identity, irrespective of their income status (Dermody et al., 2015; Kaur et al., 2022b). This relationship continues with self-identity, which influences pro-environmental behaviour (Dermody et al., 2015). PESI is a behavioural motivator (Reed et al., 2012). Pro-environment self-identity is a subgroup of attitudes and behaviour research. It does not make a sustainable contribution (Sparks and Guthrie, 1998), and PESI more strongly influences pro-environmental activities than beliefs and attitudes (Sparks and Shepherd, 1992; Kaur et al., 2022a). Identity 'manages' customers' consistent attitude and behaviour throughout their encounters. Consequently, a pro-environment response becomes automatic when the option is identified (Bryan et al., 2013). Pro-environmental actions, including recycling and energy efficiency, have been strongly correlated with Pro-environment self-identity (Whitmarsh and O'Neill, 2010). It has emerged as a crucial indicator that helps in understanding the sustainable purchasing behaviours of pro-environmental shoppers (Dermody et al., 2015; Kashima et al., 2014; Whitmarsh and O'Neill, 2010). There is presently little research assessing PESI's impact on Indian consumers' sustainable purchasing habits. As a result, this research will contribute uniquely to the existing body of knowledge. Therefore, we posit the following:

H4a. Pro-environment self-identity has a positive effect on the individual attitude towards sustainability.

H4b. PESI has a positive mediating relationship between egoistic value, altruistic value, and social consumption motivation, and Sustainable consumption behaviour.

3.5. Attitude towards sustainability

A *person's attitude* may be defined as how they habitually evaluate a given scenario's potential costs and benefits (Erni et al., 2021; Lavuri et al., 2022). The environmental assessment increased the feeling of duty among environmentally conscious buyers (Sadiq et al., 2022). Previous studies have shown that a consumer's green attitude significantly affects their level of eco-consciousness (Lavuri, 2022a), their propensity to buy sustainable apparel (Rausch and Kopplin, 2021), and their willingness to spend money on green products (Liu et al., 2019; Kaur et al., 2022a; Lavuri and Susandy, 2020). Individual attitude is crucial in researching sustainable purchasing behaviour (Essiz and Mandrik, 2022; Lavuri et al., 2022), and it influences consumer green purchasing behaviour both directly and indirectly (Kaur et al., 2022a). Previous research has examined the role of consumer personality traits (Erni et al., 2021; Mishra et al., 2022), ecological awareness (Bateman and Valentine, 2021), green marketing strategies (Casalegno et al., 2022), and sustainable commodities (Frommeyer et al., 2022; Lavuri et al., 2022) in determining customers' desire to make green purchases. Therefore, we posit the following:

H5. Attitude has a positive mediating relationship between egoistic value, altruistic value, and social consumption motivation, and Sustainable consumption behaviour.

3.5.1. Environmental protection emotion (EPE)

Studying individuals' emotional states is paramount to the marketing industry, providing valuable insights into the various motivations underlying consumer behaviour (Ou and Verhoef, 2017). The assessment of consumer contentment and the ability of a product or service to elicit an effective response is a crucial consideration (Lavuri, 2022b; Rambabu et al., 2023). Emotions are elicited by specific stimuli and are typically transient in nature, exhibiting themselves only under particular circumstances. Contemporary scholars hold the view that emotional states exert a considerable influence on individuals' behaviors (Perugini and Bagozzi, 2001). Consumers' propensity to purchase environmentally responsibly protected goods is significantly influenced by their positive and negative feelings towards environmental protection (Gonçalves et al., 2016; Kaur et al., 2022a; Rambabu et al., 2023). Individuals who possess an emotional connection to the environment are more inclined to exhibit a positive disposition and establish a firm basis for action when purchasing eco-friendly products (Lavuri et al., 2022). Environmental protection emotion improves customers' eco-consciousness about their environmentally friendly purchasing (Lavuri et al., 2023a). Therefore, we posit the following:

H6. EPA moderates the relationship between, a) egoistic value, b) altruistic value, c) social consumption motivation, d) pro-environmental self-identity, and e) attitude towards sustainability and sustainable consumption behaviour.

4. Method

4.1. Data and sampling

We used an exploratory technique to examine Indian consumers' sustainable purchasing patterns to evaluate the hypotheses presented. To collect a research sample, we employed convenience and purposeful sampling techniques. In addition, we employed the convenience sampling approach to boost the response rate and make contacting and retrieving information from respondents easier. The purposeful sampling method, also called selective, judgmental, or subjective sampling, is a method of population selection in which researchers make their selections based on independent evaluations of the characteristics of the population of interest (Kaur et al., 2022a; Lavuri, 2022a). The primary data for this study were collected using a structured questionnaire fielded in person through visits to shops selling sustainable and environmental goods in two major Indian metro-cities (Hyderabad and Mumbai). Data collection began in the third week of June 2022 and continued until the third week of September 2022. We conducted most of these surveys on the weekends to increase the sample size. The survey was about customers who purchased sustainable items from speciality shops and supermarkets during the previous three months from the survey date. The sample was filtered using several screening questions. Then customers were requested to provide voluntary responses. The standards were strict in order to include only relevant and competent individuals. More than 572 questionnaires were distributed to collect first-hand information. A total of 355 responses were collected, and 27 were discarded due to inaccuracies, mistakes, and inconsistencies. Therefore, 328 questionnaires (57.3%) were considered suitable for the final study. This percentage is far more than the threshold of 20.0% considered as acceptable (Hair et al., 2015). Table 1 provides a summary of the sample characteristics.

4.2. Research instrument

We used a pre-validated scale to design the structured questionnaire to test sustainable consumption behaviour. Two academics in the fields of sustainability and marketing reviewed the research questionnaire to validate the content and face validity factors of the scale, and we made some small adjustments to the survey questions based on their

Table 1
Respondents' profile summary (N = 328).

Characteristics		F	%
Age (years	Below 24 years	20	6.1
	25–34 years	66	20.1
	35–44 years	93	28.4
	45–54 years	101	30.8
	55 and above	48	14.6
Gender	Female	152	46.3
	Male	176	53.7
Education	Below a degree	86	26.2
	A degree	94	28.6
	Postgraduate	127	38.8
	Above Postgraduate	21	6.4
Occupation	Government employee	116	35.4
	Private employee	102	31.1
	Own business	67	20.4
	Housewife	43	13.1
Income status (monthly)	Below US $1000	73	22.3
	US $1001- US $1500	89	27.1
	US $1501- US $ 2000	72	22.1
	US $2001- US $2500	63	19.0
	Above US $2501	31	9.5

suggestions. Following a pre-test with 67 participants to validate the survey instrument, the final study questionnaire was constructed with some minor adjustments to reduce sample group difficulties. The research questionnaire is divided into two parts. The first part contains a sample profile. The second part comprises statements that will be used to assess the constructs (EV, AV, SCM, PESI, ATT, SCB, and EPE) with the 24 items that aid in investigating sustainable consumption behaviour. A 3-item scale was adapted for measuring egoistic value, altruistic value, and attitude towards sustainability from the studies of Lavuri (2022b). A 4-item scale was adapted for measuring social consumption motivation, Pro-environment self-identity, and Sustainable consumption behaviour from the study of Dermody et al. (2015), and a 3-item scale was adapted for measuring Environmental protection emotion from the study of Lavuri, (2022a,b). A 5-point scale was used to evaluate sustainable consumption behaviour, ranging from 'strongly disagree-1' to 'strongly agree-5'. The structural equation model (SEM) method was used to analyse research data and the proposed hypotheses (Hair et al., 2015).

5. Data analysis

5.1. Non-response bias

To rule out the potential discrepancies between the responses of early and late participants, the non-response bias test is a crucial criterion for interpreting the survey data (Chen and Paulraj, 2004; Armstrong and Overton, 1977). As a result, before incorporating the data into future statistical investigations, a wave analysis should be done to check for non-response bias. Here, we checked for statistical significance between early and late responses by using either the chi-square or *t*-test (Wu et al., 2016). With this pattern in mind, we divided our data in half by the date it was received (Chen and Paulraj, 2004). When we used t-tests to compare the two halves for non-response bias, we did not find any statistically significant changes ($p = .36$). As a result, we determined that non-response bias was not a major problem in our investigation. We also used a traditional method, namely the Harman one-factor test, to evaluate the common method bias, and the results show that a single factor explained 34.054% of the total variance, and this result was under the threshold value (50%). Therefore, there was no issue with the common method's bias.

5.2. Reliability and validity

We used two-step structural equation modelling (SEM) with AMOS 23.0v. First, we evaluated the measurement model (MM). After determining the model fitness of MM, we looked at the structural model (SM). Confirmatory factor analysis (CFA) was used to determine the measurements of the model. The findings show that the measurement model is well-fitting, with these acceptable good fit indices Chi-square (X2/df) = 2.788, RMSA = 0.035, NFI = 0.942, CFI = 0.965, IFI = 0.951, RFI = 0.917, and TLI = 0.944. The indices' results also align with the recognized norms (Hair et al., 2015). As shown in Table 2, composite reliability and the Cronbach's alpha of the constructs were assessed using the construct's reliabilities. Convergent validity was used to test the homogeneity of the constructs by the average variance extraction (AVE). These findings reveal that factor loading values ranged between 0.719 and 0.866, which were more than the threshold value (>0.70). Likewise, Cronbach's alpha values ranged between 0.785 and 0.862, which is more than the threshold value (>0.70); composite reliability values ranged between 0.866 and 0.888 (>0.6); and average variance extracted values ranged between 0.627 and 0.724 (>0.5). The convergent validity is high since all of these values exceeded the threshold value recommended by Hair et al. (2015) and Sardeshmukh and Vandenberg (2017) (see Table 2).

The discriminant validity of the research findings shows that the square root of AVE for each construct is greater than the absolute value of inter-construct relationship; hence, discriminant validity is validated (Table 3). The EV has a strong positive association with ATT ($r = 0.328$, $p < .01$), and SCB ($r = 0.266$, $p < .01$) at the 2-tailed significance level. Similarly, AV has a significant association with ATT ($r = 0.27$, $p < .01$) and PESI ($r = 0.245$, $p < .01$); SCM has a strong association with ATT ($r = 0.345$, $p < .01$) and SCB ($r = 0.231$, $p < .05$); PESI has a strong association with SCB ($r = 0.288$, $p < .01$); and ATT has a strong association with SCB ($r = 0.171$, $p < .01$) at the 2-tailed significance level.

5.3. Hypotheses results

Following the measurement model's model fitness, the structural model was used to evaluate the proposed hypotheses, and it has shown a satisfactory model fit: Chi-square (X2/df) = 2.632, RMSA = 0.037, NFI = 0.947, CFI = 0.961, IFI = 0.947, RFI = 0.909, and TLI = 0.936. The hypothesis results revealed that H1a–H5 was supported. The findings of the hypotheses showed that EV had a favourable effect on the PESI (H1a: $\beta = 0.078$, $p > .001$), SCB (H1b: $\beta = 0.101$, $p < .001$), and attitude towards sustainability (H1c: $\beta = 0.198$, $p < .001$). Likewise, AV had a beneficial impact on the PESI (H1a: $\beta = 0.275$, $p > .001$); SCB (H1b: $\beta = 0.116$, $p < .05$), and attitude towards sustainability (H1c: $\beta = 0.128$, $p < .001$); and, SCB had a significant impact on the PESI (H1a: $\beta = 0.132$, $p > .05$); SCB (H1b: $\beta = 0.155$, $p < .05$), and ATT (H1c: $\beta = 0.109$, $p < .001$) (Table 4).

5.4. Mediation and moderation results

Concerning mediation analysis, to investigate the mediation association between EV, AV, SCM, PESI, ATT, and SCB, we utilised the AMOS 23.0 version in the bootstrap procedure to explore the mediating effect (Hayes, 2018); therefore, using a bootstrapping method with a total of 5000 subsamples, we calculated the 95% confidence interval after correcting for bias in the indirect effect. The findings demonstrated that PESI had a strong effect on ATT (H4a: EV, AV, SCM—— > PESI ——— > ATT; $\beta = 0.118$, $p < .001$, C.R. = 1.287) and SCB (H4b: EV, AV, SCM—— > PESI ——— > SCB; $\beta = 0.187$, $p < .05$, C.R. = 2.263). Similarly, ATT had a significant effect on SCB (H5: EV, AV, SCM—— > ATT——— > SCB; $\beta = 0.155$, $p < .001$, C.R. = 11.604). As a result, PESI and ATT were both robust predictors; PESI positively affected SCB by encouraging and reinforcing individual attitudes, while ATT influenced SCB by influencing PESI (Table 5).

Regarding moderation analysis, we used Model 14 in PROCESS macro to analyse the moderating effect between EV, AV, SCM, PESI, ATT, and SCB as moderated by EPE. The research includes bootstrapping the effects 5000 times, yielding interaction terms, and associated 95%

Table 2
Factor Loading, Composite reliability, Average variance extracted, and Cronbach's alpha.

Constructs and measurement items	Factor loading	Composite reliability	Avg. variance extraction	Cronbach's alpha
Egoistic values				
To keep my eco-friendly way of life going, I am selective about the products I consume.	0.828	0.873	0.696	0.785
When buying a product, I carefully consider the item's safety and long-term sustainability.	0.866			
I consider myself to be an environmentally and healthily conscientious shopper.	0.809			
Altruistic values				
I make an additional effort to purchase recycled goods.	0.833	0.886	0.723	0.812
I have shifted to other products due to environmental concerns.	0.861			
I choose the less harmful product from two similar ones.	0.857			
Social consumption motivation				
Knowing what someone thinks of various brands or items is vital before choosing one.	0.842	0.870	0.627	0.862
Before making a purchase, it is critical to understand who buys particular brands or items.	0.719			
While making a purchase, understanding what others believe about consumers who buy particular brands or products is critical.	0.764			
Before buying a product, knowing which brands or items to purchase is crucial to create a favourable impression.	0.836			
Pro-environmental self-identity				
I consider myself to be an eco-friendly buyer.	0.811	0.874	0.635	0.793
My self-perception is that I am someone who cares deeply about environmental protection.	0.727			
I would be feeling ashamed to be seen as living an eco-friendly lifestyle.	0.801			
My loved ones and close acquaintances should not assume I am an environmentalist.	0.846			
Attitude (ATT) towards sustainability				
Green and sustainable products are secure, healthier, and more environmentally friendly.	0.866	0.888	0.724	0.823
Green items are packaged and labelled sustainably, in my view.	0.796			
When I buy or use eco-friendly products, I feel great.	0.893			
Sustainable consumption behaviour				
Purchase sustainable and natural food.	0.823	0.866	0.639	0.808
Purchase eco-friendly items.	0.792			
Purchase goods with less packaging and chemical use.	0.865			

Table 3
Measurement model discriminant validity.

Constructs	1	2	3	4	5	6
1. Egoistic value (EV)	0.837					
2. Altruistic value (AV)	0.102**	***0.85***				
3. Social consumption motivation (SCM)	0.227*	0.099**	***0.791***			
4. Pro-environment self-identity (PESI)	0.076**	0.245**	0.059*	***0.797***		
5. Attitude (ATT) towards sustainability	0.328**	0.27**	0.345**	*0.081***	***0.852***	
6. Sustainable consumption behaviour (SCB)	0.266**	0.117**	0.231*	*0.288***	*0.171**	***0.827***

**: $p < .01$ and *: $p < .05$.

Table 4
Path results.

Hypotheses	Path	β	C.R.	Sig.	Supported
H1a	EV ——— > PESI	.078	1.022	$p < .001$	Yes
H1b	EV ——— > SCB	.107	2.316	$p < .001$	Yes
H1c	EV ——— > ATT	.198	1.036	$p < .001$	Yes
H2a	AV ——— > PESI	.275	1.281	$p < .001$	Yes
H2b	AV ——— > SCB	.116	1.633	$p < .05$	Yes
H2c	AV ——— > ATT	.128	2.406	$p < 001$	Yes
H3a	SCM ——— > PESI	.132	1.217	$p < .05$	Yes
H3b	SCM ——— > SCB	.155	3.044	$p < .05$	Yes
H3c	SCM ——— > ATT	.109	1.211	$p < 001$	Yes

confidence intervals (Hayes, 2018). First, we assigned standardised values to the six components of EV, AV, SCM, PESI, ATT, and SCB and calculated and verified the interaction variable values, and the structural model was verified using AMOS v23 (Butcher et al., 2017; Lavuri, 2022b). In moderation results, EPE has a significant moderation relationship between EV and SCB (H6a: $\beta = 0.158$, $p < .001$); AV and SCB (H6b: $\beta = 0.125$, $p < .001$); SCM and SCB (H6c: $\beta = 161$, $p < .05$), PESI and SCB (H6d: $\beta = 0.192$, $p < .001$); and ATT and SCB (H6e: $\beta = 0.211$, $p < .05$) (see Table 5).

Table 5
Mediation and moderation analysis results.

Hypotheses	Mediation path analysis	β	C.R.	Sig.	Supported
H4a	EV, AV, SCM—— > PESI ——— > ATT	.118	1.287	$p < .001$	Yes
H4b	EV, AV, SCM—— > PESI ——— > SCB	.187	2.263	$p < .05$	Yes
H5	EV, AV, SCM—— > ATT——— > SCB	.155	1.604	$p < .001$	Yes
Moderation Path Analysis					
H6a	EV—— > EPE —— > SCB	.158	.927	$p < .001$	Yes
H6b	AV—— > EPE —— > SCB	.125	1.145	$p < .001$	Yes
H6c	SCM— > EPE — > SCB	.161	1.354	$p < .05$	Yes
H6d	PESI—— > EPE —— > SCB	.192	.988	$p < .001$	Yes
H6e	ATT—— > EPE —— > SCB	.211	1.328	$p < .05$	Yes

6. Discussion

Environmental problems are rapidly spreading over the globe, and sustainable development is recognized as a vital component of contemporary economic success. Important takeaways from the research for educators, marketers, and policymakers who wish to see more widespread adoption of sustainable goods may be gleaned from the data presented here.

Egoistic value has a direct positive effect on Pro-environment self-identity (H1a), Sustainable consumption behaviour (H1b), and attitude towards sustainability (H1c). The egoistic value holds significant predictive power in influencing customer attitudes and serves as a valuable tool for designing marketing strategies that aim to attract customers and foster long-term purchasing behaviour (Kautish et al., 2019). A stronger ecological self-identity was associated with greater egoistic aspirations (Lavuri, 2022a). According to the research, EV has a greater influence than AV in affecting customer attitudes and sustainable purchasing behaviour. It has a substantial impact on consumers' preference for sustainable products, with customers' well-being and social concerns influencing people's choices (Jaiswal and Kant, 2018).

AV has a direct positive effect on PESI (H2a), SCB (H2b), and ATT (H2C). It is a strong predictor of consumer attitudes about design and supports SCB (Kautish et al., 2019; Lavuri, 2022b). According to the results, AV is more important than EV in creating customer attitudes toward sustainable consumption behaviour; hence, it has a significant impact on consumer choice-making for sustainable items. AV is a powerful predictor that raises the individual PESI (Jaiswal and Kant, 2018). As a consequence, both values (AV and EV) boost individual ATT and have a favourable impact on consumers' sustainable consumption behaviour. Moreover, studies reveal that persons with an elevated level of altruistic values improve their sustainable performance and establish a strong positive attitude regarding sustainable purchasing; Lavuri's (2022a) study confirmed this finding.

In a similar vein, SCM has a considerable influence on PESI (H3a), SCB (H3b), and ATT (H3c). SCM plays an essential role in the emerging market, particularly in sustainable purchasing. SCM enables the customers to socially display their commitment to sustainability through their consumption behaviour, suggesting the socially symbolic dimension of identity is an essential consideration in this relationship. SCM is a predictor for sustainable purchase behaviour with a substantial improvement attitude towards sustainability.

PESI had a substantial mediating link between the EV, AV, SCM, ATT, and SCB (H4a) and EV, AV, SCM, ATT, and SCB (H4b). These findings are corroborated by the investigations of Dermody et al. (2015, 2018). ATT also has a significant and direct impact on the SCB (H5), validated by Rambabu et al. (2023) and Lavuri et al. (2022). As a result, a person's PESI level affects their readiness to make a voluntary sustainability sacrifice. These findings back up a few assumptions about self-efficacy and a greater degree of environmentalism as determining factors for sustainable shopping (Paswan et al., 2017). As a result, it is critical to recognise that economic, social, behavioural, and psychological aspects positively impact customers' sustainable purchasing (Mishal et al., 2017). Environmentally conscious shoppers want a coordinated method to digest information about sustainable items. As a result, our research lends credence to the idea that an individual's sense of PESI is a good determinant of sustainable purchasing decision-making, lending validity to our theoretical framework. This then lends credence to the idea that 'identity campaigning' might effectively encourage sustainable purchasing behaviours and counter prevailing materialistic attitudes (Rambabu et al., 2023).

The findings showed a substantial moderating relationship between the EV, AV, SCM, PESI, ATT, and SCB in terms of EPE as a moderation influence (H6a-e). Individuals' emotions are critical in influencing customer satisfaction with a product or a service ability to elicit an emotional response (Lavuri, 2022b). Emotions influence people's activities and inspire them to purchase environmentally responsible protective goods (Gonçalves et al., 2016). When it comes to sustainable things, individuals who are emotionally tied to the environment are more likely to have a favourable view (Lavuri et al., 2023a). EPE raises client awareness of environmentally sustainable shopping (Rambabu et al., 2023).

This study will assist companies and scholars in better understanding customers' choices and levels of satisfaction with sustainable goods. Environmental ideals favourably influence attitudes and choices towards sustainability. An emotional customer is more inclined to acquire sustainable things if the price is excellent. Consequently, individuals with lower EVs are less likely to buy sustainable items because they perceive the cost as being too high or the item's quality is mediocre.

7. Implications

7.1. Theoretical implications

This study adds significantly to, and improves upon, the existing body of literature. Previous research has emphasised the importance of factors for purchase intention for sustainable items, such as consumer personality characteristics, consciousness, and ethics, to mention a few (Lavuri, 2022a). The research also examined how people judge sustainable items based on norms, credibility, search, and experience qualities (Lavuri et al., 2022). The current study contributes to this body of literature by expanding our understanding of how pro-environmental self-identity behaviour might lead to more sustainable consumption patterns. Therefore, this study contributes to the field by using the S–O-R model to egoistic value, altruistic value, and social consumption motivation, and constructs with the mediating influence of Pro-environment self-identity and attitude towards sustainability constructs on Sustainable consumption behaviour. Pro-environment self-identity's impact on sustainable purchasing as a dynamic representation of one's ecological sustainability; the favourable effects of egoistic value and altruistic value on Pro-environment self-identity are consistent with the current S–O-R theory. They demonstrated that these values and their shared self-transcendence ability are crucial in the development and upkeep of Pro-environment self-identity and customers' commitment to long-term sustainable behaviours; the direct impact of egoistic value, and altruistic value on purchasing serves as more evidence of their significance. This is intriguing since Indian customers' Pro-environment self-identity seems to have a more substantial impact on purchasing. This implies that Pro-environment self-identity easily influences consumers' sustainable purchasing.

The influence of social consumption motives on pro-environment self-identity is notable for bolstering the relevance and 'positive nature' of status in India's rising market. This status highlights the

environmental comparison of pro-environment self-identity, which includes the demand for social acceptability and status while practicing sustainable shopping (Bamberg and Möser, 2007).

7.2. Managerial implications

The study's results have wide-ranging effects because they show that Pro-environment self-identity has a big effect on sustainable buying by making people more knowledgeable. The government must enforce social networking restrictions to increase consumer confidence in green marketing and encourage sustainable goods. Advertising for businesses should not make false or exaggerated claims about the environment. Instead, they should accept the consequences. Authentic advertisements increase customers' perception of worth and their willingness to purchase. Customer scepticism should be considered in sustainable advertising activities by advertisers. Using media, businesses can instruct people about the benefits of buying goods that are good for the environment. It is also essential to educate consumers to tell the difference between green and sustainable goods and those just trying to trick them. So, people need to use social media to tell and teach others about the issues related to the environment. Also, consumers should use their legal rights to stop 'green' marketing that is not honest (Schmuck et al., 2018).

Egoistic values have an enormous effect on how customers feel and what they do in the long run compared to altruistic values. Egoistic instincts have a more significant effect on purchasing choices than humanitarian goals. Sustainable goods are more likely to affect people's health and social status than everyday goods. So, articulating health and social issues may become more critical, and thinking about the environment may become necessary when judging which items are good for the environment. Our research shows that Egoistic and altruistic values make people more likely to buy packaged goods that are better for the environment.

Managers and advertisers should think about how consumers feel about the environment when designing and making packaging for products that can be recycled. This will help increase sales of recyclable products. The promotion of eco-friendly packaging might appeal to consumers' better nature. Companies can set themselves apart from the competition by offering packaging that is good for the environment and can be used repeatedly. Since Pro-environment self-identity is intricately linked to attitude towards sustainability, marketers need to understand how it works. It is possible that making sustainable and environmentally friendly products easier to find could decrease customer interest and enthusiasm, while a marketing strategy focusing on eco-consciousness could target people with a strong response (Hao et al., 2023).

Marketers may be able to change consumers' buying habits by making more sustainable green products available through more channels. Companies are responsible for raising environmental consciousness via advertising and initiatives that highlight deteriorating environmental situations. At the same time, governments need to do more to instruct people about the value of green products and their sustainability. Corporations need to plan to make sustainability and competition central to their corporate strategy. Companies may have a better chance of staying in business if they collaborate with the people who make green technologies, the people who use them, and the natural world. The fact that a person thinks they can make choices that are good for the environment is a strong indicator of what they will do. It influences consumers' expectations, decisions, and actions around a product's buying and uses and helps determine the likelihood of those expectations being met (Lavuri, 2022a). Consumers who care about the environment tend to be independent and take matters into their own hands rather than relying on the state or any other institution. People with a high perceived consumer effectiveness tend to be more sceptical of authorities and more inclined to rely on private initiatives to address ecological issues (Jaiswal and Kant, 2018). Consumers who care about the environment often read reviews and look for governmental certifications of green credentials before deciding. Promoting consciousness is an excellent strategy for boosting the efficiency of sustainable companies. Businesses should not make people doubtful about green marketing by using cynical language or tactics. Marketing promoting environmental sustainability has to do the double duty of informing while convincing (Schaltegger and Synnestvedt, 2002). When we used our concept model to look into how Indian consumers buy things that are good for the environment, we found that feelings of concern for the environment had a binding mediation effect. This demonstrates that Environmental protection emotion is crucial in shaping sustainable green purchasing habits. This alignment is shown by the positive association between eco-friendly buying habits, a sense of self and pro-environment self-identity on the part of consumers.

8. Conclusions

This study looked at the S–O-R theory as it applies to sustainable consumption behaviour in India. The results show that egoistic value, altruistic value, and social consumption motivation all had direct effects on Pro-environment self-identity and attitudes toward sustainable consumption behaviour and that Pro-environment self-identity and attitude served as vital mediators of the relationships between egoistic value, altruistic value, and social consumption motivation, and Sustainable consumption behaviour. On the other hand, Environmental protection emotion was found to have positive moderators with other traits, such as social consumption motivation, Pro-environment self-identity, attitude towards sustainability, and Sustainable consumption behaviour, as well as those already mentioned. The findings of this study will help the marketers of eco-friendly products think beyond the box.

9. Future research

The findings of the study and the recommendations are restricted as follows. The results will not likely be helpful for future research that does not use a random sampling method. However, this article contributes significantly to comprehending the concepts of egoistic value, altruistic value, and social consumption motivation, and the mediating impact of Pro-environment self-identity and attitudes on sustainable consumption purchasing, as well as the moderating influence of environmental protective emotional behaviours in India. Other factors influencing this study include social, psychological, technological, and perceived threats. These sections help us realise how difficult it is to acquire environmentally friendly products. Gender, pricing, marketing factors, green labelling, and quality can all be controlled. Sustainable consumer behaviour is the subject of this analysis. On the other hand, studies on Gen-X, Millennials, and Baby Boomers are still needed. Also, since this study was done in India, similar studies could be done in other places and compared to the results of the Indian study. Combining cross-sectional and longitudinal research designs is necessary for studying sustainable consumer behaviour and figuring out how significant changes affect the growth of markets.

Credit author statement

Rambabu Lavuri: Prepared the original first draft of the manuscript, conceptualization, theory development, visualization and methodology, data collection, data curation, and formal data analysis, investigation, prepared the various files, revision of initial and revision drafts, and compiled the final manuscript.; **David Roubaud:** Conceptualized the sections, subsections, data analysis issues, theory related suggestions, proofread, edited, and assisted in the revision of the manuscript.; **Oksana Grebinevych:** Conceptualized the sections, subsections, data analysis issues, theory related suggestions, proofread, edited, and assisted in the revision of the manuscript.

Declaration of competing interest

The authors declare there is no conflict of interest.

Data availability

Data will be made available on request.

References

Ajibade, I., Boateng, G.O., 2021. Predicting why people engage in pro-sustainable behaviors in Portland Oregon: the role of environmental self-identity, personal norm, and socio-demographics. J. Environ. Manag. 289, 112538.

Armstrong, J.S., Overton, T.S., 1977. Estimating nonresponse bias in mail surveys. J. Market. Res. 14 (3), 396–402.

Bamberg, S., Möser, G., 2007. Twenty years after Hines, Hungerford, and Tomera: a new meta-analysis of psycho-social determinants of pro-environmental behaviour. J. Environ. Psychol. 27 (1), 14–25. https://doi.org/10.1016/j.jenvp.2006.12.002.

Banerjee, D., Banerjee, A.V., Duflo, E., 2007. The economic lives of the poor. J. Econ. Perspect. 21 (1), 141–167.

Bateman, C.R., Valentine, S.R., 2021. Consumers' personality characteristics, judgment of salesperson ethical treatment, and nature of purchase involvement. J. Bus. Ethics 1692, 309–331.

Bigné, E., Zanfardini, M., Andreu, L., 2020. How online reviews of destination responsibility influence tourists' evaluations: an exploratory study of mountain tourism. J. Sustain. Tourism 28 (5), 686–704.

Bryan, C.J., Adams, G.S., Monin, B., 2013. When cheating would make you a cheater: implicating the self prevents unethical behaviour. J. Exp. Psychol. Gen. 142 (4), 1001–1005.

Butcher, L., Phau, I., Shimul, A., 2017. Uniqueness and status consumption in Generation Y consumers: does moderation exist? Market. Intell. Plann. 35, 673–687. https://doi.org/10.1108/MIP-12-2016-0216.

Casalegno, C., Candelo, E., Santoro, G., 2022. Exploring the antecedents of green and sustainable purchase behaviour: a comparison among different generations. Psychol. Market. 39 (5), 1007–1021.

Chen, I.J., Paulraj, A., 2004. Towards a theory of supply chain management: the constructs and measurements. J. Oper. Manag. 22 (2), 119–150.

Chou, S.Y., Shen, G.C., Chiu, H.C., Chou, Y.T., 2016. Multichannel service providers' strategy: understanding customers' switching and free-riding behaviour. J. Bus. Res. 69 (6), 2226–2232.

Crompton, T., Kasser, T., 2010. Human identity: a missing link in environmental campaigning. Environment 52 (4), 23–33.

De Groot, R., Brander, L., Van Der Ploeg, S., Costanza, R., Bernard, F., Braat, L., van Beukering, P., 2012. Global estimates of the value of ecosystems and their services in monetary units. Ecosyst. Serv. 1 (1), 50–61.

Dermody, J., Hanmer-Lloyd, S., Koenig-Lewis, N., Zhao, A.L., 2015. Advancing sustainable consumption in the UK and China: the mediating effect of pro-environmental self-identity. J. Market. Manag. 31 (13–14), 1472–1502.

Dermody, J., Koenig-Lewis, N., Zhao, A.L., Hanmer-Lloyd, S., 2018. Appraising the influence of pro-environmental self-identity on sustainable consumption buying and curtailment in emerging markets: evidence from China and Poland. J. Bus. Res. 86, 333–343.

Erni, R., Lavuri, R., Ardi, G., 2021. Purchasing eco-sustainable products: interrelationship between environmental knowledge, environmental concern, green attitude, and perceived behaviour. Sustainability 13 (9), 4601. https://doi.org/10.3390/su13094601.

Essiz, O., Mandrik, C., 2022. Intergenerational influence on sustainable consumer attitudes and behaviors: Roles of family communication and peer influence in environmental consumer socialization. Psychol. Mark. 39 (1), 5–26.

Fitzmaurice, J., Comegys, C., 2006. Materialism and social consumption. J. Market. Theor. Pract. 14 (4), 287–299.

Frommeyer, B., Wagner, E., Hossiep, C.R., Schewe, G., 2022. The utility of intention as a proxy for sustainable buying behaviour—a necessary condition analysis. J. Bus. Res. 143, 201–213.

Gatersleben, B., Murtagh, N., Abrahamse, W., 2014. Values, identity and pro-environmental behaviour. Contemp. Soc. Sci. 9 (4), 374–392.

Gonçalves, H.M., Lourenço, T.F., Silva, G.M., 2016. Green buying behavior and the theory of consumption values: a fuzzy-set approach. J. Bus. Res. 694, 1484–1491.

Grappe, C.G., Lombart, C., Louis, D., Durif, F., 2022. Clean labeling: is it about the presence of benefits or the absence of detriments? Consumer response to personal care claims. J. Retailing Consum. Serv. 65, 102893.

Gulzari, A., Wang, Y., Prybutok, V., 2022. A green experience with eco-friendly cars: a young consumer electric vehicle rental behavioural model. J. Retailing Consum. Serv. 65, 102877.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tatham, R.L., 2015. Multivariate Data Analysis, seventh ed.

Han, Q., Zhang, J., Shi, X., Zhou, D., Ding, Y., Peng, S., 2022. Ecological function-oriented vegetation protection and restoration strategies in China's Loess Plateau. J. Environ. Manag. 323, 116290.

Hao, X., Li, Y., Ren, S., Wu, H., Hao, Y., 2023. The role of digitalization on green economic growth: does industrial structure optimization and green innovation matter? J. Environ. Manag. 325, 116504.

Hassan, L.M., Shiu, E., Shaw, D., 2016. Who says there is an intention–behaviour gap? Assessing the empirical evidence of an intention–behaviour gap in ethical consumption. J. Bus. Ethics 136, 219–236.

Hayes, A.F., 2018. Partial, conditional, and moderated mediation: quantification, inference, and interpretation. Commun. Monogr. 85, 4–40.

Heberlein, T.A., 1972. The land ethic realized: some social psychological explanations for changing environmental attitudes. J. Soc. Issues 28 (4), 79–87.

Jacoby, J., 2002. Stimulus-organism-response reconsidered: an evolutionary step in modelling (consumer) behaviour. J. Consum. Psychol. 12 (1), 51–57.

Jaiswal, D., Kant, R., 2018. Green purchasing behaviour: a conceptual framework and empirical investigation of Indian consumers. J. Retailing Consum. Serv. 41, 60–69. https://doi.org/10.1016/j.jretconser.2017.11.008.

Kamboj, S., Sarmah, B., Gupta, S., Dwivedi, Y., 2018. Examining branding co-creation in brand communities on social media: applying the paradigm of Stimulus-Organism-Response. Int. J. Inf. Manag. 39, 169–185.

Kashima, Y., Paladino, A., Margetts, E.A., 2014. Environmentalist identity and environmental striving. J. Environ. Psychol. 38, 64–75.

Kaur, J., Lavuri, R., Park, T., 2022a. Purchase intention of organic foods: are lifestyles of health and sustainability are the reason for my purchase decision? Asia Pac. J. Mark. Logist. 35 (6), 1532–1551. https://doi.org/10.1108/APJML-02-2022-0123.

Kaur, J., Parida, R., Ghosh, S., Lavuri, R., 2022b. Impact of materialism on purchase intention of sustainable luxury goods: an empirical study in India. Soc. Bus. Rev. 17 (1), 22–44. https://doi.org/10.1108/SBR-10-2020-0130.

Kautish, P., Paul, J., Sharma, R., 2019. The moderating influence of environmental consciousness and recycling intentions on green purchase behaviour. J. Clean. Prod. 228, 1425–1436. https://doi.org/10.1016/j.jclepro.2019.04.389.

Kim, S.H., Huang, R., Kim, S., 2022. Exploring advertising strategy for restaurants sourcing locally: the interplay of benefit appeal and regulatory focus. J. Hospit. Tourism Manag. 50, 127–138.

Lavuri, R., Jindal, A., Umair, A., Naik, K., Halibas, A.S., 2023a. Exploring consumer antecedents of sustainable consumer purchase intentions: evidence from emerging countries. Sustain. Dev. 31 (1), 1–12. https://doi.org/10.1002/sd.2389.

Lavuri, R., 2022a. Extending the theory of planned behaviour: factors fostering on millennial intention to purchase of eco-sustainable products in an emerging market. J. Environ. Plann. Manag. 65 (8), 1507–1529. https://doi.org/10.1080/09640568.2021.1933925.

Lavuri, R., 2022b. Organic green purchasing: moderation of environmental protection emotion and price sensitivity. J. Clean. Prod. 368, 133113 https://doi.org/10.1016/j.jclepro.2022.133113.

Lavuri, R., Charbel, J., Oksana, G., Roubaud, D., 2022. Green factors stimulating the purchase intention of innovative luxury organic beauty products: implications for sustainable development. J. Environ. Manag. 301, 113899 https://doi.org/10.1016/j.jenvman.2021.113899.

Lavuri, R., Jaiswal, D., Thaichon, P., 2023. Extrinsic and intrinsic motives: panic buying and impulsive buying during a pandemic. Int. J. Retail Distrib. Manag. 51 (2), 190–204.

Lavuri, R., Susandy, G., 2020. Green Products: factors exploring the green purchasing behavior of southern indian shoppers. Indones. j. sustain. account. manage. 4 (2), 174–191. https://doi.org/10.28992/ijsam.v4i2.229.

Liu, P., He, J., Li, A., 2019. Upward social comparison on social network sites and impulse buying: a moderated mediation model of negative affect and rumination. Comput. Hum. Behav. 96, 133–140. https://doi.org/10.1016/j.chb.2019.02.003.

Mazhar, W., Jalees, T., Asim, M., Alam, S.H., Zaman, S.I., 2022. Psychological consumer behaviour and sustainable green food purchase. Asia Pac. J. Mark. Logist. https://doi.org/10.1108/APJML-05-2021-0317 ahead-of-print No. ahead-of-print.

Mehrabian, A., Russell, J.A., 1974. The basic emotional impact of environments. Percept. Mot. Skills 38 (1), 283–301.

Mishal, A., Dubey, R., Gupta, O.K., Luo, Z., 2017. Dynamics of environmental consciousness and green purchase behaviour: an empirical study. Int. J. Clim. Change Strategies Manage. 9 (5), 682–706.

Mishra, S., Shukla, Y., Malhotra, G., Chatterjee, R., Rana, J., 2022. Millennials' self-identity and intention to purchase sustainable products. Australas. Market J. 31 (3), 199–210, 18393349221075026.

Nafees, L., Hyatt, E.M., Garber Jr., L.L., Das, N., Boya, Ü.Ö., 2022. Motivations to buy organic food in emerging markets: an exploratory study of urban Indian millennials. Food Qual. Prefer. 96, 104375.

Nagoya, R., Bernarto, I., Antonio, F., Pramono, R., Wanasida, A.S., Purwanto, A., 2021. Exploring intention to enrol in a university using an extended stimulus-organism-response model. Acad. Strat. Manag. J. 20, 1–12.

Ou, Y.C., Verhoef, P.C., 2017. The impact of positive and negative emotions on loyalty intentions and their interactions with customer equity drivers. J. Bus. Res. 80, 106–115.

Paswan, A., Guzman, F., Lewin, J., 2017. Attitudinal determinants of environmentally sustainable behaviour. J. Consum. Market. 34 (5), 414–426.

Perugini, M., Bagozzi, R.P., 2001. The role of desires and anticipated emotions in goal-directed behaviours: broadening and deepening the theory of planned behaviour. Br. J. Soc. Psychol. 40 (1), 79–98.

Rambabu, L., Akram, U., Akram, Z., 2023. Exploring the sustainable consumption behavior in emerging countries: the role of pro-environmental self-identity, attitude, and environmental protection emotion. Bus. Strat. Environ. 1–13. https://doi.org/10.1002/bse.3411.

Rausch, T.M., Kopplin, C.S., 2021. Bridge the gap: consumers' purchase intention and behaviour regarding sustainable clothing. J. Clean. Prod. 278, 123882.

Reed II, A., Forehand, M.R., Puntoni, S., Warlop, L., 2012. Identity-based consumer behaviour. Int. J. Res. Market. 29 (4), 310–321.

Sadiq, M., Adil, M., Paul, J., 2022. Eco-friendly hotel stays and environmental attitude: a value-attitude-behaviour perspective. Int. J. Hospit. Manag. 100, 103094.
Sardeshmukh, S.R., Vandenberg, R.J., 2017. Integrating moderation and mediation: a structural equation modelling approach. Organ. Res. Methods 20 (4), 721–745.
Schaltegger, S., Synnestvedt, T., 2002. The link between 'green' and economic success: environmental Management as the crucial trigger between environmental and economic performance. J. Environ. Manag. 65 (4), 339–346.
Schmuck, D., Matthes, J., Naderer, B., 2018. Misleading consumers with green advertising? An affect–reason–involvement account of greenwashing effects in environmental advertising. J. Advertising 47 (2), 127–145.
Sparks, P., Guthrie, C.A., 1998. Self-identity and the theory of planned behaviour: a useful addition or an unhelpful artifice? J. Appl. Soc. Psychol. 28 (15), 1393–1410.
Sparks, P., Shepherd, R., 1992. Self-identity and the theory of planned behaviour: assessing the role of identification with" green consumerism. Soc. Psychol. Q. 55 (4), 388–399.
Sultan, P., Tarafder, T., Pearson, D., Henryks, J., 2020. Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: moderating roles of communication, satisfaction and trust in organic food consumption. Food Qual. Prefer. 81, 103838.
Talwar, S., Jabeen, F., Tandon, A., Sakashita, M., Dhir, A., 2021. What drives willingness to purchase and stated buying behaviour toward organic food? A Stimulus–Organism–Behaviour–Consequence (SOBC) perspective. J. Clean. Prod. 293, 125882.
Tewari, A., Mathur, S., Srivastava, S., Gangwar, D., 2022. Examining the role of receptivity to green communication, altruism and openness to change on young consumers' intention to purchase green apparel: a multi-analytical approach. J. Retailing Consum. Serv. 66, 102938.
Van der Werff, E., Steg, L., Keizer, K., 2013. It is a moral issue: the relationship between environmental self-identity, obligation-based intrinsic motivation and pro-environmental behaviour. Global Environ. Change 23 (5), 1258–1265.
Verma, V.K., Chandra, B., Kumar, S., 2019. Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention. J. Bus. Res. 96, 206–216.
Whitmarsh, L., O'Neill, S., 2010. Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. J. Environ. Psychol. 30 (3), 305–314.
Wu, C.S., Zhou, X.X., Song, M., 2016. Sustainable consumer behaviour in China: an empirical analysis from the Midwest regions. J. Clean. Prod. 134, 147–165.
Yang, J., Long, R., Chen, H., Sun, Q., 2022. Identifying what shapes the words and actions of residents' environmentally friendly express packaging: evidence from a two-stage payment model. J. Environ. Manag. 307, 114496.
Yin, Z., Li, B., Li, S., Ding, J., Zhang, L., 2022. Key influencing factors of green vegetable consumption in Beijing, China. J. Retailing Consum. Serv. 66, 102907.
Zou, L.W., Chan, R.Y., 2019. Why and when do consumers perform green behaviours? An examination of regulatory focus and ethical ideology. J. Bus. Res. 94, 113–127. https://doi.org/10.1016/j.jbusres.2018.04.006.