

Flourishing for the future: The role of emotional intelligence in sustainable consumption- evidence from Mexican consumers

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ABSTRACT

This study investigates the psychological mechanisms driving consumer responsibility for sustainable consumption and its influence on sustainable purchasing decisions. Building on the premise that consumer responsibility predicts sustainable consumption behaviors, we propose a framework that examines how emotional intelligence and flourishing affect willingness to pay more for ecological products, with the mediating roles of personal norms, frugality, and pro-ecological behavior. Using structural equation modeling (PLS-SEM), on data from 430 surveyed participants, the findings reveal that emotional intelligence positively influences flourishing, while personal norms and frugality mediate the relationship between flourishing and consumer responsibility for sustainable consumption. Additionally, pro-ecological behavior mediates the effect of consumer responsibility on willingness to pay more for ecological products. By uncovering the emotional and normative antecedents of sustainable consumption, this study refines existing theories and provides actionable insights for policies, educational programs, and marketing strategies that promote sustainability and address environmental challenges, offering valuable contributions towards a more sustainable future.

1. Introduction

The depletion of natural resources and severe environmental pollution arise from unsustainable consumption, population growth, industrialization, and urban expansion. These challenges threaten ecosystems, the welfare of future generations, and mental health (Kühner, Gemmecke, Hüffmeier, & Zacher, 2025). Beyond the economic and social consequences, environmental degradation and global climate change exert profound psychological impacts on individuals, influencing mental health, emotional wellbeing, and interpersonal relationships. Negative emotions such as stress, anxiety, worry, and depression have been widely documented as responses to climate-related events and media coverage (Clayton, 2020; Kühner et al., 2025). Furthermore, frequent exposure to negative climate news intensifies emotions such as despair and guilt, contributing to “climate anxiety” (Ogunbode et al., 2022; Ortner, Armstrong, & Ulmer, 2025).

While emotions are responses to environmental challenges, they are not static; instead, they can be regulated and managed through the

development of emotional intelligence. Emotional intelligence, defined as the ability to recognize, understand, and regulate emotions in oneself and others (Petrides & Furnham, 2001; Salovey & Mayer, 1990), facilitates adaptive emotional responses and constructive problem-solving (Gross, 1998). Research has demonstrated the relevance of emotional intelligence across multiple domains, including the workplace, education, and relationships (e.g. Hjalmarrsson & Dåderman, 2022; MacCann, Jiang, Brown, Double, Bucich, & Minbashian, 2020). Additionally, growing evidence links emotional intelligence to mental health, psychological wellbeing, flourishing, and sustainable consumption (e.g., Arteaga-Cedeño, Carbonero-Martín, Martín-Antón, Molinero-González, & Valdivieso-León, 2025; Kokubun, Nemoto, & Yamakawa, 2025; Lisboa, Gómez-Román, Guntín, & Monteiro, 2024).

This capacity for emotional regulation is also associated with differences in how individuals process climate change information and respond through pro-environmental behaviors, including responsible consumption choices (Abbas & Iftikhar, 2025; Ortner et al., 2025). Related research highlights the importance of a self-regulated

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mindset—the ability to manage thoughts, feelings, and behaviors towards long-term goals (Baumeister, André, Southwick, & Tice, 2024) — for predicting sustainable and pro-environmental consumption behaviors (Fennis, 2022; Nielsen & Hofmann, 2021; Song, Lee, Mutha, & Kim, 2023). Together, these perspectives suggest that emotional intelligence may support responsible consumption by fostering emotional regulation and more sustained, goal-oriented decision-making.

Despite these advances, dominant theoretical frameworks in sustainable consumption research, such as the Value-Belief-Norm Theory (Stern & Dietz, 1994) and the Theory of Planned Behavior (Ajzen & Fishbein, 1980), continue to prioritize cognitive and normative processes. Although these models allow for the inclusion of mediating variables, they offer limited insight into how emotional and wellbeing-related factors shape long-term consumption decisions (Nielsen, 2017). As a result, a theoretical gap remains in understanding how psychological factors, such as emotional intelligence and flourishing — a state of optimal psychological functioning — operate together to influence consumer responsibility for sustainable consumption. While interest in psychological drivers of sustainable consumption is growing, prior research has largely examined emotional intelligence and flourishing in isolation, leaving unexplored how these emotional and wellbeing-related resources jointly relate to consumer responsibility and downstream sustainable outcomes. Addressing this gap is theoretically relevant because it extends existing models beyond cognitively driven explanations by incorporating emotional regulation and psychological wellbeing as central psychological underpinnings of responsible consumption.

To date, empirical evidence examining the joint influence of emotional intelligence and flourishing on responsible and sustainable consumption remains scarce. This study addresses this limitation by examining how these two psychological factors jointly shape consumer responsibility for sustainable consumption and clarifying the mechanisms through which these relationships unfold. Specifically, personal norms, frugality, and pro-environmental behavior are examined as mediating pathways linking emotional regulation and psychological wellbeing to responsible consumption and willingness to pay for ecological products.

Examining these relationships in the Mexican context is particularly relevant. Mexico combines strong collectivistic cultural values, pronounced social norms, and increasing environmental and socioeconomic challenges — conditions that may shape how emotional and wellbeing-related factors translate into responsible consumption behaviors (Toldos, Rialp-Criado, & Agredano, 2025). Evidence from Mexican consumers, therefore, provides a meaningful context for advancing knowledge on sustainable consumption in emerging markets with similar cultural and socioeconomic characteristics.

The findings of this study, derived from Structural Equation Modeling applied to constructs measured using established scales from the literature and based on a sample of 430 respondents, offer valuable theoretical and practical implications. Theoretically, the study broadens the understanding of psychological antecedents of consumer responsibility for sustainable consumption by integrating emotional and wellbeing-based factors into the value-belief-norm framework. Practically, this study highlights a distinctive pathway for promoting sustainable lifestyles by positioning emotional intelligence and psychological wellbeing as a novel target for interventions. Whereas prior CRSC and willingness-to-pay research has primarily emphasized cognitive and normative levers—such as raising awareness of environmental consequences or strengthening attitudes and values—our findings demonstrate that enhancing individuals' emotional regulation and psychological wellbeing can also foster long-term commitment to sustainable consumption. This shift from purely cognitive interventions towards approaches that integrate emotional intelligence and flourishing offers policymakers, educators, and marketers new tools for designing initiatives that not only inform consumers about environmental issues but also build the emotional and psychological resources

necessary to translate responsibility into concrete pro-environmental behaviors and greater willingness to pay for ecological products.

2. Literature review

2.1. Emotional intelligence and its impact on flourishing

Emotional intelligence (EI) has received considerable scholarly attention in recent decades (MacCann et al., 2020). Initially termed “social intelligence” by Thorndike (1920), the concept was later expanded by Gardner (1983) and formally defined by Salovey and Mayer (1990) as the ability to recognize, understand, and manage emotions to guide thought and action. Goleman (1995) popularized the term, emphasizing that emotional intelligence is equally as crucial as IQ for success in life. Since then, it has become a significant focus of research, leading to important developments in the field (see Petrides et al., 2016).

Probably the most comprehensive mixed model of emotional intelligence is the Trait Emotional Intelligence (Trait EI) instrument developed by Petrides and Furnham (2001), which focuses on how we perceive our own emotional behaviors. This model is assessed using the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, Pita, & Kokkinaki, 2017), a measure of our self-perceived emotional abilities and moods. The TEIQue (which also has a short form) has a hierarchical structure consisting of global emotional intelligence and four key dimensions: well-being, self-control, emotionality, and sociability. It also includes two auxiliary facets, adaptability and self-motivation, that enhance global EI (Petrides, 2009a, 2009b).

Various studies have found that EI is positively correlated with outcomes such as happiness, life satisfaction, optimism, self-esteem, social support, and better coping with stress, and negatively correlated with mental disorders, anxiety, depression, stress, loneliness, and social anxiety (e.g., Chen, Chiang, & Chu, 2025; du Plessis, 2023; Satıcı, Okur, & Kütük, 2024). Individuals with higher EI often report better psychological adjustment, enjoy better health, manage their emotions effectively, and maintain more effective interpersonal relationships (du Plessis, 2023; Sanchez-Ruiz et al., 2021). These qualities are essential for increased contentment and wellbeing.

As for the concept of flourishing (FS), researchers have become increasingly interested in developing and measuring this concept (e.g. Diener et al., 2010; Seligman, 2011) through different theories and conceptualizations of the abstract construct of wellbeing. While terms such as “happiness”, “flourishing”, and “subjective wellbeing” are interchangeably used in the literature (Butler & Kern, 2016), we will refer to flourishing as defined by many researchers.

For Keyes (2002), adults with complete mental health, i.e., a positive mental state and no mental illness, flourish in life with high levels of wellbeing and experience positive emotions and optimal human performance. According to Seligman (2011), flourishing is achieved through five pillars of wellbeing, known as the PERMA theory: positive emotions (P), engagement (E), relationships (R), meaning (M), and accomplishment (A).

Huppert and So (2013) outline ten components of flourishing that contrast with symptoms of depression and anxiety. Butler and Kern (2016) consider flourishing a dynamic state of psychosocial functioning across various domains. Diener et al. (2010) define flourishing as high psychological well-being, involving quality relationships, respect, personal competence, engagement, self-acceptance, and a sense of meaning and purpose. Their Flourishing Scale measures individuals' perceptions of positive functioning in areas like self-esteem, relationships, optimism, and purpose. This operationalization primarily captures eudaimonic aspects of wellbeing, excluding hedonic components, differing from more holistic approaches to flourishing (Rule, Abbey, Wang, Rozelle, & Singh, 2024).

In sum, flourishing is a set of positive psychological concepts that help us understand what it means to feel well and happy (Seligman,

2011). Flourishing is closely connected to wellbeing and fulfillment, characterized by a sense of life's purpose/meaning and encompassing feelings of joy, contentment, happiness, life satisfaction, and effective psychological and social functioning (du Plessis, 2023; Rule et al., 2024; The Global Flourishing Study Research Team, 2025).

Although there is relatively little research on the relationship between EI and FS many studies have found a strong link between trait EI and various wellbeing outcomes (Chamizo-Nieto, Arrivillaga, Rey, & Extremera, 2021; du Plessis, 2023). From the discussion above, since trait emotional intelligence would seem to be crucial for wellbeing and psychological functioning, it contributes positively to flourishing. Based on the foregoing discussion, EI is expected to have a positive influence on self-esteem, purpose, optimism, and social and psychological wellbeing, leading to flourishing. Accordingly, we hypothesize that:

H1. Emotional intelligence (EI) positively influences flourishing (FS).

2.2. Consumer responsibility for sustainable consumption

Sustainability, as defined by the World Commission on Environment and Development (WCED, 1987), involves meeting present needs without compromising future generations. Therefore, the idea behind sustainable consumption is that people and societies develop responsible consumption behaviors that prioritize essential needs and minimize negative impacts on the environment and society (Mohammad & Quoqueab, 2024). This concept has been explored across various fields, including operationalization of the sustainable consumption construct, drivers of sustainable behaviors, and factors that influence consumer behavior through different theoretical frameworks (e.g., Falke, Schröder, & Hofmann, 2022, for a review of the literature).

Numerous researchers have studied the antecedents that contribute to environmentally and socially responsible sustainable consumer behaviors, and several models have been proposed, e.g., the theory of planned behavior (Ajzen, 1991; Ajzen & Fishbein, 1980), widely used to explain these behaviors through a focus on intentions and attitudes to the behavior. However, the role of emotional intelligence as an antecedent in promoting sustainable consumption is increasingly recognized. Emotional intelligence is crucial to promoting sustainable behaviors and influencing consumption decisions since it is associated with altruism, empathy, optimism, and social responsibility (Robinson, Downey, Ford, Lomas, & Stough, 2019). People with greater emotional intelligence exhibit a more developed sense of duty and of emotional, social, and environmental awareness (Furnham & Petrides, 2003), which all positively influence the adoption of habits that reduce waste, promote recycling, etc. (e.g., Japutra & Loureiro, 2020; Tokay, Argan, & Tahir, 2022). This, in turn, influences environmentalism (Furnham & Petrides, 2003; Robinson et al., 2019).

Within this context, consumer responsibility for sustainable consumption has emerged as a pivotal factor in sustainable behaviors. According to Luchs, Phipps, and Hill (2015), consumer responsibility for sustainable consumption is a multi-dimensional construct that includes cognitive, emotional, moral, and sociocultural aspects. It refers to the sense of responsibility or obligation that consumers experience in relation to alignment of their consumption patterns with their personal values, and the promotion of values that benefit society and the environment. Factors that affect this construct include situational factors (e.g., the availability of sustainable products) and personal characteristics such as environmental values, self-identity, attitudes towards sustainability, and motivations regarding sustainable actions.

Although several studies have linked emotions and emotional intelligence to sustainable consumption, little is known regarding the possible links to consumer responsibility for sustainable consumption, and no empirical studies have examined the role of flourishing in relation to consumer responsibility for sustainable consumption or the association between CRSC and willingness to pay more for ecological products. Human flourishing refers to an optimal state of functioning

that involves positive emotions, engagement, meaning, positive relationships, and a sense of accomplishment (du Plessis, 2023; Rule et al., 2024). This state of holistic wellbeing is closely related to responsible and sustainable consumption. When people experience positive emotions, they are motivated to engage in sustainable actions, such as reduced consumption. Additionally, their sense of purpose is associated with a motivation to make a difference in the world, which may include adopting sustainable behaviors. Therefore, we believe that human flourishing is a key predictor of CRSC because it will guide informed decisions that align with personal values and that minimize the negative environmental and social impacts of consumption. Thus, we hypothesize the following:

H2. Flourishing (FS) positively influences consumer responsibility for sustainable consumption (CRSC).

2.3. Personal norms and frugality as mediators of consumer responsibility for sustainable consumption

Despite a significant focus on the study of accelerated resource consumption that is degrading the planet's finite capacity to supply resources considered crucial for economic and social growth, research is still scant on conscious consumption, attitudes, personal norms, and behaviors associated with consumer responsibility for sustainable consumption (Luchs & Miller, 2015). With the objective of exploring personal characteristics that affect consumer responsibility for sustainable consumption, we focused on analyzing the relationship between personal norms and frugality and consumer responsibility for sustainable consumption.

As mentioned before, consumer responsibility for sustainable consumption is a multi-dimensional construct with four dominant perspectives: cognition, emotion, sociocultural shaping, and moral imperative (Luchs et al., 2015). Responsibility for consumption involves prioritizing others over personal gain, guided by personal norms influenced by the attribution of responsibility, i.e., consumers have the responsibility to align their consumption patterns with their personal values while also promoting environmental and societal wellbeing.

While from the Theory of Planned Behavior (Ajzen, 1991), whereby social norms refer to the perceived social pressure regarding a behavior and so contribute to moral norms, Bamberg and Möser (2007) propose that moral obligation arises when social norms are internalized. In this sense, social norms are defined as a set of "standards" that distinguish right from wrong behaviors and, rather than exercising pressure to act a certain way, provide a foundation for developing personal norms (Bamberg & Möser, 2007). Therefore, personal norms encompass cognitive, emotional, and social aspects, distinct from social norms, which denote perceived social pressure (Hosta & Zabkar, 2021).

Internalized personal norms are crucial in driving pro-environmental and pro-social behaviors, influencing individuals' intentions and awareness of consequences. Studies suggest that personal norms may attenuate the impact of social norms on environmentally responsible actions (Thøgersen, 2006) and significantly predict responsible consumption and sustainable behaviors (e.g., Hosta & Zabkar, 2021). However, there remains a gap in our understanding of the mediating effects of personal norms on consumer responsibility for sustainable consumption. Based on VBN and TPB frameworks, personal norms are likely to mediate the relationship between FS and CRSC, as internalized values and moral obligations guide intentions that shape sustainable consumption behaviors. If personal norms can promote responsible consumption by encouraging individuals to act with a sense of responsibility, or in a way that is consistent with their values, and flourishing people with a purpose in their lives, can have personal norms that guide their behavior towards more sustainable actions, then we propose:

H3. Personal norms (PN) mediate the relationship between flourishing (FS) and consumer responsibility for sustainable consumption (CRSC).

Frugality can be defined as a set of attitudes, thoughts, and intentions that affect an individual's inclination towards a resourceful use of resources and a restrained approach to consumption (Goldsmith, Flynn, & Clark, 2014; Muñoz, Suárez, Hess, & Hernández, 2015). It involves intentional decision-making, seeking value, limiting consumption, and self-regulating consumer behavior, independent of economic circumstances or financial status (Goldsmith et al., 2014; Lastovicka, Betten-court, Shaw Hughner, & Kuntze, 1999; Muñoz et al., 2015). As both consumer and lifestyle trait, frugality entails careful acquisition and efficient utilization of goods and services, resisting impulse purchases, and focusing on long-term objectives (Lastovicka et al., 1999). This behavioral trait includes two aspects: limiting consumption and maximizing the utilization of available resources, i.e., prioritizing value, extending product lifespan, maintaining possessions, making forward-thinking purchases, repurposing, repairing, reusing, and recycling.

Researchers have identified frugality as the opposite of consumerism, as it promotes reduced consumption and eco-friendly practices (Goldsmith et al., 2014; Lastovicka et al., 1999). Frugality correlates positively with sustainability efforts, including ecocentrism, anti-consumerism, positive environmental and social behaviors, and altruism, and is negatively associated with materialism (Mohammad & Quoquab, 2024; Suárez, Hernández, Gil-Giménez, & Corral-Verdugo, 2020). Nevertheless, if frugality highlights the importance of consuming only what is necessary to minimize environmental impact and promotes sustainable lifestyles and pro-environmental behaviors, as well as social wellbeing (Kumar & Kathuria, 2024; Mohammad & Quoquab, 2024), then frugality can be supposed to positively affect consumer responsibility for sustainable consumption.

Frugality is not only associated with sustainable behaviors but also with positive psychological functioning and value-oriented lifestyles, including greater life satisfaction, creativity, and mental wellbeing (Kumar & Kathuria, 2024; Muñoz et al., 2015). However, we do not know enough about the relationships between flourishing and frugality, or between flourishing and consumer responsibility for sustainable consumption. We posit that individuals who experience psychological wellbeing, characterized by voluntary and autonomous actions that contribute to individual flourishing, and who have a strong sense of purpose in life, are more likely to prioritize living simply, remain aware of the environmental impact of their choices, and avoid unnecessary consumption, thereby reflecting frugality. From this perspective, frugality is expected to support sustainability while being closely intertwined with individual flourishing, underscoring its relevance in the context of sustainable practices and personal fulfillment. Accordingly, frugality is proposed as a mediating mechanism between flourishing and conscious, moderate resource utilization, aligned with personal values and norms. This is consistent with VBN and TPB theories, which explain how personal values and intentions guide sustainable behaviors (Zulkepli et al., 2024). Thus, individuals who experience flourishing are more likely to engage in frugality, which in turn supports consumer responsibility for sustainable consumption. We therefore hypothesize:

H4. Frugality (FG) mediates the relationship between flourishing (FS) and consumer responsibility for sustainable consumption (CRSC).

2.4. Consumer responsibility for sustainable consumption, pro-environmental behavior, and willingness to pay more for ecological products

The importance of product and service attributes and their influence on willingness to pay varies according to social, environmental, and economic factors (Chen, Sujanto, Tseng, Fujii, & Lim, 2021). Willingness to pay is defined as the price a buyer is willing to pay for a product, so it is crucial for businesses and marketers to understand how consumers engage in actions to promote sustainability and how it affects consumers' willingness to pay more for goods and services that are

environmentally friendly.

Previous research has studied customers' willingness to pay more across various product categories, but identifying the underlying drivers is still a challenge (Chen et al., 2021). Some studies have demonstrated the positive effect of corporate social responsibility mediated by brand attitude and moderated by personal factors and product types (see Narayanan & Singh, 2023). Also, previous studies have found a positive relationship between willingness to pay for green products and purchasing behavior with different factors, including attitudes towards green products, conscious purchase behavior, consumer sustainability orientation, values, and personal and social norms (e.g., Kim & Seock, 2019; Kumar, Prakash, & Kumar, 2021).

Consumers with a high level of responsibility for sustainable consumption take responsibility for their purchasing decisions, making informed choices to minimize negative impacts and promote societal and environmental benefits. As a result, they are more likely to prefer ecological products and are willing to pay a higher price for them. This inclination stems from the belief that ecological products are more environmentally friendly due to sustainable production practices. Furthermore, supporting such products is viewed as beneficial to local communities and ecosystems, and so aligns with personal norms and values. Economic considerations such as perceived value, price sensitivity, and the availability of eco-friendly alternatives can impact consumers' willingness to pay a premium for ecological products. Accordingly, we hypothesize:

H5. Consumer responsibility for sustainable consumption (CRSC) positively influences willingness to pay more for ecological products (WPEP).

While the term "sustainable behavior" specifies the set of actions aimed at protecting both the natural and human (social) environments, pro-environmental behavior emphasizes purposeful and effective actions aimed at conserving the natural environment, such as recycling, composting, energy-saving practices, and water conservation, among others (Kotzya et al., 2024) or, at least minimizing harm to the environment as much as possible.

In this line, there has been extensive research into predictors of pro-environmental behavior, with positive associations identified between environmentally responsible behaviors and both internal and external influences (e.g., climate change, income, price, etc.). For example, some studies have established a link between pro-environmental behavior and psychological variables such as altruistic attitudes, environmental awareness (e.g., Kousar, Afzal, Ahmed, & Bojnec, 2022), personal norms, beliefs, values, climate anxiety (e.g., Hogg, Stanley, O'Brien, Watsford, & Walker, 2024), as well as social connectedness and prosocial orientations (Duong & Pensini, 2023), which orient individuals towards particular actions. Researchers have demonstrated that pro-environmental behaviors mediate the relationship between climate change awareness and environmental awareness (Kousar et al., 2022). Moreover, studies suggest that environmental awareness plays a role in promoting pro-environmental behaviors and green consumption behaviors (e.g., Kotzya et al., 2024; Shen & Wang, 2022).

While previous research has explored the relationship between pro-environmental behavior and other factors, there is a lack of studies investigating whether consumers' personal characteristics, such as their sense of responsibility for sustainability, make them more inclined to engage in pro-environmental behaviors. Based on previous research we suggest that pro-environmental behaviors, can translate into a relationship between responsible consumption and the likelihood of purchasing eco-friendly products. Considering that consumers with high responsibility for sustainable consumption characterized by a strong sense of personal responsibility towards sustainable consumption, are more likely to prioritize purchasing products that align with their environmental values, it can be deduced that this personal norm may encourage them to adopt pro-environmental behaviors. These behaviors will cultivate a mindset that increases their inclination to choose

ecological products, reinforcing sustainable practices and suggesting a willingness to pay a premium for such products. Thus, we propose the following hypothesis:

H6. Pro-environmental behavior (PEB) mediates the relationship between consumer responsibility for sustainable consumption (CRSC) and willingness to pay more for ecological products.

In sum, our proposed model (Fig. 1) includes two variables as antecedents to consumer responsibility for sustainable consumption (CRSC): emotional intelligence (EI) and flourishing (FS). CRSC is expected to be positively associated with willingness to pay for ecological products (WPEP), with pro-environmental behavior (PEB) acting as a mediator. Furthermore, personal norms (PN) and frugality (FG) are hypothesized to mediate the FS-CRSC relationship. This framework advances our understanding of the psychological mechanisms underlying sustainable consumption.

3. Method

3.1. Participants and procedure

The participants' selection process was based on criteria set by the Mexican Census Bureau (INEGI, 2020), using quota sampling based on sociodemographic variables to ensure a reasonably diverse sample. The composition of the sample involved stratified random sampling to ensure that key demographic groups within the Mexican population were properly represented. Participants completed an anonymous survey using the Pollfish online panel. Ethical approval and voluntary informed consent were obtained from all participants in accordance with relevant institutional and ethical guidelines. To ensure data quality, we incorporated attention-check items, monitored response times to detect potentially inattentive responses, and conducted preliminary screening to identify incomplete or inconsistent answers.

A total of 430 participants (49.8% females and 50.2% males) aged between 18 and 54 years ($M_{age} = 37.25$, $SD = 12.77$) participated in the study. Among them, 39.6% were aged 35–54, 72.9% were employed or self-employed, 41.16% had middle incomes (earning above 20,000 MXN), and 95.8% had completed upper secondary or postgraduate education. To assess the adequacy of our sample size, we conducted a power analysis using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). The analysis was based on the construct with the maximum number of predictors in the model (CRSC, with three predictors), assuming a medium effect size ($f^2 = 0.15$), a significance level of 0.05, and statistical power of 0.95. Results indicated that a minimum sample size of 119 respondents was required. Our sample of 430 respondents, therefore, exceeds the recommended threshold by a wide margin,

ensuring sufficient power for detecting medium and even small effects in the model.

3.2. Measurement instruments

We used established standardized scales previously validated in the literature and adapted for this specific study (see Table 1). Trait Emotional Intelligence (Trait EI) was assessed using the TEIQue-SF, which reflects self-perceived emotional abilities and distinguishes it from ability or state EI. Each item was rated on a five-point Likert scale (1 “strongly disagree” to 5 “strongly agree”), except for the PEB construct, for which behavior was measured on a four-point Likert scale (“never” to “always”).

4. Data analysis and results

In this study, Partial Least Squares Structural Equation Modeling (PLS-SEM) was selected over Covariance-Based SEM (CB-SEM) due to considerations related to sample characteristics, model complexity, and data distribution. PLS-SEM is particularly appropriate for exploratory and predictive research where the objective is to maximize explained variance (R^2) and to assess complex mediation and moderation effects, making it an optimal choice for the research questions and theoretical framework of this study.

A central reason for adopting PLS-SEM is the non-normality of the dataset, as indicated by the Shapiro–Francia normality test (28 of the 46 items did not follow a normal distribution). Since CB-SEM assumes multivariate normality, deviations from this assumption can compromise the reliability of parameter estimates, especially under Maximum Likelihood Estimation (MLE). By contrast, PLS-SEM is a variance-based method that does not require normally distributed data, providing robustness when dealing with skewed or kurtotic variables, which are frequently observed in studies of consumer attitudes and behavioral intentions (Hair Jr, Sarstedt, Ringle, & Gudergan, 2023).

Model complexity further reinforced the preference for PLS-SEM. The model includes multiple latent constructs and indirect effects, and using CB-SEM under such conditions could lead to estimation problems and low statistical power, particularly in subgroup analyzes (Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016). PLS-SEM, by contrast, can simultaneously estimate direct, indirect, and interaction effects without imposing restrictive assumptions, making it especially suitable for models involving multiple mediation and moderation paths.

Moreover, whereas CB-SEM is oriented towards confirmatory model testing, PLS-SEM is more appropriate for theory development and for identifying factors associated with willingness to pay more for ecological products (Hair Jr et al., 2023). Additional advantages of PLS-SEM

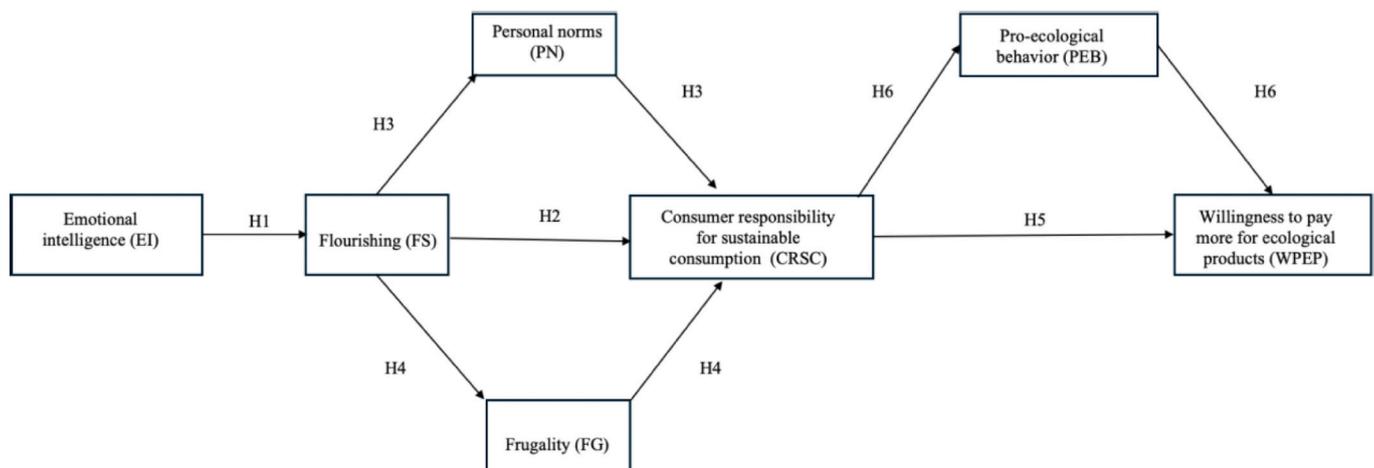


Fig. 1. Conceptual framework.

Table 1 (continued)

Construct	Operational definition	Items	Dimensions	Source
Willingness to pay more for ecological products (WPEP)	A predisposition or inclination to pay a higher price for products that have environmentally friendly attributes or characteristics.	WPEP01: "It is acceptable to pay 10% more for groceries that are produced, processed, and packaged in an environmentally friendly". WPEP02: "I would accept paying 10% more in taxes to pay for an environmental cleanup programme". WPEP03: "I would be willing to spend an extra 200 MNX a week in order to buy less environmentally harmful products".	WPEP	(Laroche, Bergeron, & Barbaro-Forleo, 2001)
Pro-environmental behavior (PEB)	Being mindful of actions and taking steps to promote environmental sustainability, conserve resources, and minimize negative impacts on the environment to improve overall sustainability.	PEB01: "Buys products in refillable packages". PEB02: "Collects and recycles used paper". PEB03: "Has pointed out unecological behavior". PEB04: "Reads about environmental issues". PEB05: "Talks to friends about environmental problems". PEB06: "Encourages friends and family to recycle". PEB07: "Brings empty bottles to a recycling bin".	PEB	Mexican population scale adapted by (Tapia-Fonllem, Fraijo, Corral-Verdugo, Gutiérrez, & Tirado, 2006) from the General Ecological Behavior Scale (Kaiser, 1998)

Note. * = reverse-scored item. All scale items correspond to the original versions of the scales. One WPEP item was contextually adjusted to reflect the local currency.

include greater flexibility in managing missing data and mitigating multicollinearity issues, which are common in real-world consumer datasets. Finally, the increasing adoption of PLS-SEM in sustainability and consumer behavior research provides further support for this methodological choice, aligning the study with best practices in recent empirical work on sustainability and responsible consumption (Henseler, Ringle, & Sarstedt, 2016; Suki & Suki, 2019). Taken together, the dataset characteristics (non-normality), model complexity, and the exploratory orientation of the research confirm that PLS-SEM is the most appropriate and robust analytical technique for this study.

To assess potential common method bias (CMB), we applied both procedural and statistical remedies. Procedurally, we ensured respondent anonymity, randomized item order, and included reverse-coded items to reduce evaluation apprehension and acquiescence bias. Statistically, we examined full collinearity variance inflation factors (VIFs) for all latent constructs (Kock, 2015). All VIFs were below the conservative threshold of 3.3, indicating that CMB is unlikely to have distorted the results (Table A1 in the Appendix presents the inner model VIF confidence intervals).

4.1. Measurement model

Using Smart PLS 4.1, we performed SEM to evaluate the validity and reliability of the measurement part of the model. This involved analyzing the indicator loadings and the results of the confirmatory factor analysis results for the first order constructs. Table 2 shows that items loadings are higher than 0.7, supporting indicator reliability. In addition, the composite reliability values for all constructs exceed the recommended threshold of 0.7 (Bagozzi & Yi, 1988). The uniqueness of the concepts was determined by comparing shared variances to the corresponding average variance extracted (AVE), using Fornell and Larcker's (1981) standard of 0.5. Furthermore, the items were weighted based on construct indicator individual loadings. Cronbach's alpha for most constructs was above 0.700, and above 0.600 for CRSC, resources, self-control, and sociability. These were considered acceptable values for exploratory analysis at small scales (Taber, 2018), and showed acceptable composite reliability (CRSC, rho_c = 0.805; resources, rho_c = 0.818; self-control, rho_c = 0.854; sociability, rho_c = 0.835).

Examining the Fornell-Larcker criterion and the Heterotrait-monotrait ratio (HTMT) (Henseler, Ringle, & Sarstedt, 2015) (Table 3), no problems of discriminant validity are observed (regarding

Table 2
Construct reliability and convergent validity.

Construct	Item	OL	CA	CR (rho_c)	AVE
Emotionality	TEIQSF01EM	0.766	0.735	0.849	0.653
	TEIQSF03EM	0.834			
	TEIQSF04EM	0.822			
Wellbeing	TEIQSF02WB	0.815	0.719	0.842	0.640
	TEIQSF03WB	0.813			
	TEIQSF04WB	0.771			
Self-control	TEIQSF01SC	0.815	0.659	0.854	0.745
	TEIQSF02SC	0.813			
Sociability	TEIQSF01SO	0.860	0.605	0.835	0.716
	TEIQSF02SO	0.833			
FS	FS01	0.839	0.847	0.891	0.621
	FS02	0.780			
	FS03	0.801			
	FS05	0.741			
	FS06	0.777			
	CRSC	0.737			
CRSC02	0.703				
CRSC03	0.838				
PN	PN01	0.809	0.911	0.933	0.737
	PN02	0.856			
	PN03	0.857			
	PN04	0.867			
	PN05	0.901			
Resources	FG01	0.739	0.665	0.818	0.600
	FG03	0.828			
	FG04	0.754			
Restrictions	FG05	0.719	0.818	0.873	0.581
	FG06	0.721			
	FG07	0.760			
	FG08	0.828			
	FG09	0.776			
WPEP	WPEP01	0.854	0.821	0.893	0.736
	WPEP02	0.886			
	WPEP03	0.834			
PEB	PEB03	0.734	0.859	0.899	0.642
	PEB04	0.835			
	PEB05	0.857			
	PEB06	0.865			
	PEB07	0.702			

Note. OL = outer loading; CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted.

Table 3
Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT).

	CRSC	Emotionality	Flourishing	PEB	PN	Resources	Restrictions	Selfcontrol	Sociability	WPEP	Wellbeing
CRSC	0.762	0.095	0.285	0.286	0.528	0.325	0.224	0.200	0.242	0.304	0.259
Emotionality	0.135	0.808	0.349	0.075	0.104	0.129	-0.090	0.286	0.304	0.037	0.339
Flourishing	0.386	0.442	0.788	0.292	0.303	0.332	0.077	0.538	0.624	0.199	0.758
PEB	0.379	0.115	0.340	0.801	0.434	0.146	-0.037	0.174	0.309	0.365	0.236
PN	0.665	0.125	0.346	0.496	0.859	0.324	0.132	0.166	0.193	0.415	0.221
Resources	0.490	0.214	0.444	0.193	0.416	0.775	0.509	0.157	0.215	0.055	0.287
Restrictions	0.300	0.126	0.104	0.089	0.153	0.687	0.762	0.030	0.038	-0.020	0.078
Self-control	0.313	0.410	0.718	0.230	0.214	0.236	0.103	0.863	0.498	0.084	0.546
Sociability	0.397	0.443	0.871	0.428	0.259	0.337	0.121	0.786	0.846	0.216	0.557
WPEP	0.407	0.073	0.239	0.429	0.480	0.091	0.094	0.113	0.307	0.858	0.136
Wellbeing	0.371	0.459	0.964	0.291	0.271	0.418	0.144	0.789	0.838	0.175	0.800

Note. Fornell-Larcker criterion values are on the diagonal and above; HTMT values are below the diagonal.

the HTMT ratio, all are below the threshold of 0.85 except for wellbeing-flourishing, which accomplishes the Fornell-Larcker criterion).

The standardized root mean square residual (SRMR) value of the measurement model was 0.111, slightly above the conservative threshold of 0.08 (Henseler et al., 2016; Hu & Bentler, 1999). Although this suggests a modest lack of fit, it is important to note that the SRMR was originally developed for covariance-based SEM. Following best practices in PLS-SEM (Hair, Hult, Ringle, & Sarstedt, 2022), greater emphasis is placed on construct reliability and validity, which in this study were fully supported (indicator reliability, composite reliability, convergent validity, and discriminant validity). Therefore, despite the SRMR value being marginally higher than the suggested cut-off, the measurement model can be considered acceptable.

Our analysis incorporated two reflective-reflective higher-order constructs: Emotional Intelligence (EI) and Frugality (see Table 4). Emotional Intelligence (EI) was modeled as a reflective higher-order construct composed of four reflective first-order dimensions: Emotionality, Self-control, Sociability, and Wellbeing. Three of the dimensions (Self-control, Sociability, Wellbeing) loaded strongly on EI (outer loadings ranging from 0.77 to 0.86), while Emotionality presented a weaker loading (OL = 0.54). Despite this, the inclusion of this dimension is theoretically warranted, as it represents an established component of the emotional intelligence framework. Furthermore, the construct achieved satisfactory reliability (Cronbach's alpha = 0.745; composite reliability = 0.838) and convergent validity (AVE = 0.571), thus supporting its inclusion in the model.

Frugality was conceptualized as a reflective second-order construct formed by Resources and Restrictions. Both dimensions loaded significantly ($\lambda = 0.95$ and $\lambda = 0.75$). Although Cronbach's alpha (0.675) was slightly below the recommended threshold, this is common for constructs with only two indicators. The composite reliability (0.845) and AVE (0.735) clearly exceeded recommended cut-offs, confirming the construct's reliability and convergent validity.

Discriminant validity was assessed using both the Fornell-Larcker criterion and the heterotrait-monotrait ratio (HTMT). As shown in Table 5, the square roots of AVE (diagonal values) are higher than the correlations with other constructs, supporting discriminant validity. Regarding HTMT, all values were below the conservative threshold of 0.85, with the exception of the Emotional Intelligence-Flourishing pair (HTMT = 0.949). Although this exceeds the 0.85 cut-off, it is

Table 4
Convergent validity of second-order constructs.

		EI	Frugality	Cronbach's alpha	Composite reliability ($\rho_{ho,c}$)	Average variance extracted (AVE)
EI	Emotionality	0.539				
	Self-control	0.774		0.745	0.838	0.571
	Sociability	0.807				
	Wellbeing	0.862				
Frugality	Resources		0.950	0.675	0.845	0.735
	Restrictions		0.753			

theoretically justifiable given the conceptual overlap between both constructs. While conceptually related (both relate to wellbeing), emotional intelligence reflects emotional capacities, whereas flourishing captures an outcome state of optimal psychological functioning.

The SRMR value for the second-order measurement model was 0.103. Although this value is slightly above the recommended cut-off of 0.08 (Hu & Bentler, 1999), it falls close to the more liberal threshold of 0.10 often applied in PLS-SEM (Henseler et al., 2016). Given that all constructs demonstrated satisfactory reliability, convergent validity, and discriminant validity, the measurement model can be considered acceptable overall.

4.2. Structural model

The structural model was assessed using the PLS-SEM approach with 5000 bootstrap resamples, employing percentile bootstrap confidence intervals and a fixed random seed to ensure reproducibility. We examined the model fit and effect sizes. The standardized root mean square residual (SRMR) value of the saturated model was 0.060, below the recommended threshold of 0.08, while the estimated model yielded 0.103, slightly above the cut-off (d_ULS: 4.034; d_G: 0.484). We placed greater emphasis on construct reliability, convergent and discriminant validity, and predictive power (R^2 and f^2), all of which were satisfactorily established. The effect size (f^2) analysis indicated that EI had a very large effect on flourishing ($f^2 = 1.563$), PN exerted a medium effect on CRSC ($f^2 = 0.255$), while other relationships showed small effects, ranging from 0.037 to 0.103, in line with Cohen's (1988) guidelines.

Predictive validity was further assessed using PLSpredict with the cross-validated predictive ability test (CVPAT) (Liengaard et al., 2021; Sharma, Liengaard, Hair, Sarstedt, & Ringle, 2023). All Q^2 predict values were positive, confirming predictive relevance, with Flourishing showing particularly strong predictive power ($Q^2_{predict} = 0.606$). When compared to the naïve benchmark, PLS yielded significantly lower prediction error for CRSC, Flourishing, PEB, PN, and WPEP ($p < 0.05$), while the improvement was not significant for Frugality. In contrast, when compared to the linear regression benchmark, results were mixed. For PN, PLS significantly outperformed linear regression (average loss difference = -0.012, $p = 0.004$), and for CRSC it performed slightly better though not significantly (-0.009, $p = 0.217$). For Flourishing, Frugality, PEB, and WPEP, linear regression showed slightly lower

Table 5
Discriminant validity of second-order constructs.

	CRSC	EI	Flourishing	Frugality	PEB	PN	WPEP
CRSC	0.762	0.277	0.285	0.330	0.286	0.528	0.304
EI	0.385	0.755	0.781	0.223	0.279	0.235	0.168
Flourishing	0.386	0.949	0.788	0.282	0.292	0.303	0.198
Frugality	0.470	0.276	0.311	0.857	0.098	0.295	0.035
PEB	0.379	0.328	0.340	0.140	0.801	0.434	0.365
PN	0.665	0.276	0.346	0.335	0.496	0.859	0.415
WPEP	0.407	0.200	0.239	0.058	0.429	0.480	0.858

Note. Fornell-Larcker criterion values are on the diagonal and above; HTMT values are below the diagonal. Table A2 in the Appendix reports the bootstrapped confidence intervals for HTMT ratios.

prediction error, though differences were small and nonsignificant. At the overall level, the PLS model clearly outperformed the naïve benchmark ($-0.093, p < 0.001$) but did not significantly outperform linear regression ($+0.006, p = 0.246$). These results suggest that the model has meaningful out-of-sample predictive power, particularly for Flourishing and PN, although linear regression provides comparable performance for some constructs (Table 6).

Table 7 presents the results for the hypothesized direct and indirect effects. The model explained 32.2% of the variance in CRSC, 61% in FS, and 17.7% in WPEP, all exceeding the recommended threshold of 0.10 (Falk & Miller, 1992). As hypothesized, Emotional Intelligence (EI) had a strong positive association with Flourishing ($\beta = 0.781, p < 0.001$), supporting H1. Flourishing showed a small but significant positive association with CRSC ($\beta = 0.101, p = 0.042$), which provides partial support for H2. Moreover, Flourishing showed a significant association with both Frugality ($\beta = 0.282, p < 0.001$) and Personal Norms (PN) ($\beta = 0.303, p < 0.001$). In turn, Frugality ($\beta = 0.169, p < 0.001$) and PN ($\beta = 0.449, p < 0.001$) had a positive influence on CRSC. Regarding outcomes, CRSC showed a significant positive association with both Pro-environmental Behavior (PEB) ($\beta = 0.287, p < 0.001$) and Willingness to Pay for Ecological Products (WPEP) ($\beta = 0.218, p < 0.001$). Finally, PEB had a significant effect on WPEP ($\beta = 0.303, p < 0.001$).

Several mediation pathways were also examined. First, supporting H3, PN significantly mediated the association between Flourishing on CRSC ($\beta = 0.136, p < 0.001$), and also extended the indirect pathway Flourishing \rightarrow PN \rightarrow CRSC \rightarrow PEB ($\beta = 0.039, p = 0.002$) and Flourishing \rightarrow PN \rightarrow CRSC \rightarrow WPEP ($\beta = 0.030, p = 0.003$). Similarly, the chain mediation Flourishing \rightarrow PN \rightarrow CRSC \rightarrow PEB \rightarrow WPEP was significant ($\beta = 0.012, p = 0.007$). Second, consistent with H4, Frugality acted as a significant mediator between Flourishing and CRSC ($\beta = 0.048, p = 0.004$). Moreover, additional chained effects were observed: Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow PEB ($\beta = 0.014, p = 0.008$), Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow WPEP ($\beta = 0.010, p = 0.013$), and Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow PEB \rightarrow WPEP ($\beta = 0.004, p = 0.018$). Third, supporting H5, CRSC showed a significant direct association with WPEP ($\beta = 0.218, p < 0.001$). In addition, mediation through PEB was confirmed (CRSC \rightarrow PEB \rightarrow WPEP: $\beta = 0.087, p < 0.001$). Finally, in line with H6, PEB mediated the relationship between CRSC and WPEP ($\beta = 0.087, p < 0.001$). Further chained effects were also significant: PN \rightarrow CRSC \rightarrow PEB

Table 6
Predictive Relevance (Q^2) and Cross-Validated Predictive Ability Test (CVPAT).

	Q^2 predict	RMSE	MAE	PLS loss	IA loss	Average loss difference	t value	p value	PLS loss	LM loss	Average loss difference	t value	p value
CRSC	0.070	0.970	0.781	1.002	1.047	-0.045	3.584	0.000	1.002	1.011	-0.009	1.236	0.217
Flourishing	0.606	0.632	0.483	0.534	0.860	-0.326	8.603	0.000	0.534	0.521	0.013	1.941	0.053
Frugality	0.046	0.981	0.806	0.979	1.004	-0.025	1.527	0.128	0.979	0.968	0.011	0.973	0.331
PEB	0.031	0.989	0.821	0.811	0.827	-0.016	4.795	0.000	0.811	0.787	0.024	1.883	0.060
PN	0.052	0.980	0.786	0.927	0.963	-0.036	2.120	0.035	0.927	0.939	-0.012	2.866	0.004
WPEP	0.018	0.996	0.794	1.537	1.557	-0.020	2.491	0.013	1.537	1.531	0.006	0.288	0.773
Overall				0.910	1.003	-0.093	8.772	0.000	0.910	0.904	0.006	1.162	0.246

Note. Q^2 predict = predictive relevance; RMSE = root mean square error; MAE = mean absolute error; PLS = partial least squares; LM = linear model; IA = indicator availability.

Table 7
Summary of direct and indirect effects.

Hypothesis	Path/mediation	β	p value	Result
H1	EI \rightarrow Flourishing	0.781	0.000	Supported
H2	Flourishing \rightarrow CRSC	0.101	0.042	Supported
H3	Flourishing \rightarrow PN \rightarrow CRSC	0.136	0.000	Supported
	Flourishing \rightarrow PN \rightarrow CRSC \rightarrow PEB	0.039	0.002	Supported
	Flourishing \rightarrow PN \rightarrow CRSC \rightarrow WPEP	0.030	0.003	Supported
	Flourishing \rightarrow PN \rightarrow CRSC \rightarrow PEB \rightarrow WPEP	0.012	0.007	Supported
H4	Flourishing \rightarrow Frugality \rightarrow CRSC	0.048	0.004	Supported
	Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow PEB	0.014	0.008	Supported
	Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow WPEP	0.010	0.013	Supported
H5	Flourishing \rightarrow Frugality \rightarrow CRSC \rightarrow PEB \rightarrow WPEP	0.004	0.018	Supported
	CRSC \rightarrow WPEP	0.218	0.000	Supported
H6	CRSC \rightarrow PEB \rightarrow WPEP	0.087	0.000	Supported
	CRSC \rightarrow PEB \rightarrow WPEP (via PEB)	0.087	0.000	Supported
	PN \rightarrow CRSC \rightarrow PEB \rightarrow WPEP	0.039	0.001	Supported
	Frugality \rightarrow CRSC \rightarrow PEB \rightarrow WPEP	0.015	0.005	Supported

\rightarrow WPEP ($\beta = 0.039, p = 0.001$) and Frugality \rightarrow CRSC \rightarrow PEB \rightarrow WPEP ($\beta = 0.015, p = 0.005$).

In summary, the results highlight that Flourishing is associated with CRSC both directly and indirectly through PN and Frugality, while CRSC plays a central role in shaping sustainable outcomes by fostering both pro-environmental behaviors and willingness to pay more for ecological products.

4.3. Multigroup analysis

Because gender yields two balanced sub-samples, we conducted a multi-group analysis (MGA). Prior to comparing paths, we tested measurement invariance using the MICOM procedure (Henseler et al., 2016). Step 1 (configural invariance) was ensured by using identical model specification, indicators, and estimation settings across groups. In Step 2 (compositional invariance), all constructs met the criterion (original correlations = 0.996–1.000; permutation 5% quantiles =

0.987–0.998; permutation p -values = 0.189–0.992 \geq 0.05), establishing partial measurement invariance, which is sufficient for comparing group-specific parameters. We then ran PLS-MGA with 5000 bootstrap resamples (Hair et al., 2022). Neither path coefficient differences between women and men were significant (all one-tailed $p > 0.05$; e.g., $\Delta\beta$ (PN \rightarrow CRSC) = -0.139 , $p = 0.915$; $\Delta\beta$ (Frugality \rightarrow CRSC) = 0.107 , $p = 0.115$; $\Delta\beta$ (CRSC \rightarrow WPEP) = 0.005 , $p = 0.476$) nor specific indirect effects. Reliability and validity indices within each group mirrored those of the full sample. These results indicate that the structural relationships in our model are invariant across gender (detailed MICOM Step-2 outputs and PLS-MGA differences are provided in Tables A3, A4, and A5 in the Appendix).

5. Discussion

The theoretical framework proposed in this study (Fig. 1) offers significant contributions to understanding the psychological antecedents of sustainable consumption behaviors. Our findings support the hypotheses, demonstrating the intricate relationships between emotional intelligence, flourishing, personal norms, frugality, and consumer responsibility for sustainable consumption.

As hypothesized, emotional intelligence is positively associated with flourishing, highlighting the role of emotional regulation and wellbeing in shaping individuals' capacity for adaptive and meaningful engagement with their environment (Abbas & Iftikhar, 2025; Gross, 1998; Ortner et al., 2025). In turn, this engagement promotes psychological wellbeing, supports effective decision-making, and facilitates the processing of complex sustainability issues (Lavuri, Roubaud, & Grebinevych, 2023; Song et al., 2023). Flourishing showed a weak but significant direct association with consumer responsibility for sustainable consumption. Flourishing individuals may be characterized by values and norms aligned with pro-environmental behaviors, and our results suggest that these traits are sufficient, though modest, to be directly associated with responsible consumption choices. This finding aligns with calls to explore more complex mechanisms behind sustainable consumption decisions (Ajzen & Fishbein, 1980; Stern & Dietz, 1994). Future research should investigate additional mediators or moderators, such as lifestyle traits or environmental concern, that may strengthen the association between flourishing and sustainable behaviors. It could also explore whether these relationships remain stable when flourishing is operationalized using more holistic measures.

Importantly, the findings indicate that both emotional intelligence and flourishing are indirectly associated with consumer responsibility through personal norms and frugality. Flourishing individuals, characterized by optimism, purpose, and wellbeing, are more likely to develop strong personal norms that serve as internal guides for pro-environmental behavior, often reinforced by feelings of personal responsibility (Bouman et al., 2020; Thøgersen, 2006). These norms, grounded in emotional intelligence and self-awareness, are associated with a greater alignment between individuals' values and their consumption-related actions, supporting more responsible consumption patterns. Moreover, both emotional intelligence and flourishing encourage frugality—emphasizing resource-conscious decisions that not only promote environmental sustainability but also enhance personal fulfillment (Nielsen & Hofmann, 2021; Song et al., 2023). Emotional regulation supports personal norms and frugality, reinforcing sustainable consumption behaviors (Lavuri et al., 2023; Song et al., 2023). This highlights the interconnected nature of emotional regulation, psychological wellbeing, and sustainable behaviors.

Our findings further indicate that consumer responsibility for sustainable consumption is positively associated with individuals' willingness to pay more for ecological products. This association underscores the importance of fostering a sense of responsibility to encourage greater financial investment in sustainable options, even when they are costlier.

Moreover, the indirect association between CRSC and WPEP through pro-environmental behaviors was significant, confirming the mediating role of proactive sustainable actions. These results are consistent with the notion that behaviors such as recycling, energy conservation, and waste reduction channel the impact of responsibility into tangible, and sometimes costly, commitments (Krumm, 2024).

Overall, this study highlights the significant role of psychological constructs, such as emotional intelligence and flourishing, in shaping sustainable consumption behaviors. By identifying personal norms and frugality as critical pathways, our findings emphasize the need for holistic approaches that address both emotional and cognitive dimensions of consumer decision-making. Ultimately, the results suggest that fostering sustainable consumption requires not only changing what consumers think but also strengthening how they feel and function psychologically.

5.1. Theoretical contributions

This study makes several contributions to theory. First, it extends traditional frameworks of sustainable consumption, such as the Theory of Planned Behavior (Ajzen & Fishbein, 1980) and the Value-Belief-Norm theory (Stern & Dietz, 1994), by incorporating emotional intelligence (EI) and flourishing (FS) as psychological antecedents of consumer responsibility for sustainable consumption (CRSC). While prior research has largely emphasized cognitive or attitudinal drivers, our findings highlight the relevance of emotional regulation (Gross, 1998) and psychological wellbeing (Abbas & Iftikhar, 2025; Ortner et al., 2025) in shaping sustainable choices.

Second, we identify personal norms (PN) and frugality (FG) as critical mediating pathways linking EI and FS to CRSC. This demonstrates that flourishing individuals translate their emotional wellbeing into sustainable responsibility primarily through normative commitments and resource-conscious attitudes. The finding aligns with prior evidence that personal norms are key moral drivers of pro-environmental behavior (Bouman et al., 2020) and that frugality enhances sustainable choices by fostering resource-conscious and fulfillment-oriented consumption (Nielsen & Hofmann, 2021; Song et al., 2023). By doing so, the study underscores the interplay between affective and cognitive processes in the formation of pro-environmental responsibility.

Third, the results deepen the understanding of the dual function of CRSC, showing that it is associated not only with behavioral intentions—such as the willingness to pay more for ecological products—but also with concrete pro-environmental behaviors (PEB). Recent evidence indicates that individuals who assume stronger responsibility for sustainable consumption are more likely to translate these convictions into specific practices, including recycling, conserving energy, and reducing waste. These tangible behaviors, in turn, strengthen their commitment to supporting and paying more for environmentally friendly products (Krumm, 2024). By establishing this link, our research positions CRSC as both a motivational and behavioral construct, enriching the theoretical foundations of sustainable consumption.

5.2. Practical implications

The findings of this study offer meaningful insights for policies, educational programs, and marketing strategies aimed at improving emotional intelligence and fostering environmental responsibility. These insights provide actionable pathways to support gradual changes in consumption behaviors and strengthen individual and collective commitments to sustainability, highlighting the practical relevance of emotional intelligence in addressing environmental challenges.

One key implication concerns education. Emotional intelligence is a powerful tool for fostering sustainable thinking and behavior, enabling individuals to feel, think, and act in harmony with ecological systems. It

shapes how people process and react to information about climate change, respond to environmental challenges, and anticipate the consequences of their actions. This, in turn, is critical for understanding consumer decision-making and encouraging pro-environmental behavior. From a practical perspective, these insights suggest the value of integrating emotional intelligence components into existing sustainability, ethics, or social responsibility courses at secondary and higher education levels. In Mexico, where socioeconomic heterogeneity and unequal access to environmental education persist, embedding emotional intelligence with established educational structures may be more feasible and effective than implementing resource-intensive standalone programs. Such integration can support more informed and responsible consumption choices aligned with sustainable goals.

A second implication relates to social marketing and community-based interventions. By leveraging social marketing campaigns and psychological programs, stakeholders can foster personal norms, frugal behaviors, and attitudes that support sustainable living. In Mexico, these initiatives may be particularly effective when implemented through universities, public institutions, and community-based environmental programs that already promote sustainability. Emotionally framed messages that connect everyday consumption practices with personal and social responsibility may foster greater individual engagement with environmental issues and strengthen social cohesion. Moreover, a sense of purpose and meaning in life is associated with higher levels of flourishing, which are, in turn, linked to greater environmental responsibility. In contexts where community ties and collective identities are central, such as Mexico, these dynamics may be relevant for both individual wellbeing and broader sustainability outcomes.

Policymakers also play a critical role in fostering emotional intelligence at a societal level. Policies that promote environmental stewardship can help cultivate pro-environmental norms and support sustainable consumption patterns. In Mexico, where structural inequalities and regional differences are pronounced, such policies may benefit from flexibility and adaptation to local contexts. Integrating emotional intelligence and sustainability initiatives into existing public education, workplace training, or community development programs may encourage the internalization of environmental values and facilitate collective action across diverse populations.

Finally, the findings have implications for businesses and marketing practice. Companies may benefit from developing marketing strategies and product offerings that align sustainability with consumers' personal norms and values. In the Mexican context, these strategies can be implemented through existing retail, digital, and point-of-sale practices, without requiring major organizational changes. Given prevailing economic constraints, emphasizing frugality, durability, and long-term value may be more effective than focusing solely on premium sustainable products. In addition, targeted interventions that promote recycling, energy conservation, and support for eco-friendly initiatives can strengthen consumer responsibility. The observed associations between consumer responsibility and willingness to pay more for environmentally friendly products suggests potential implications for brand loyalty and sustainable-oriented business strategies. In this sense, positioning eco-friendly products in ways that resonate with consumer values may contribute to aligning market demand with sustainability goals.

By addressing these practical implications, this research provides a roadmap for fostering emotional intelligence and environmental responsibility at individual, community, and societal levels. Together, these efforts can accelerate the transition to a more sustainable world while enhancing wellbeing and quality of life.

5.3. Limitations and future research

This study has certain limitations that warrant careful consideration. Although the data was collected from a diverse sociodemographic

sample in Mexico, the generalizability of the findings may be constrained by both the methodological approach and the study's geographic context. Because PLS-SEM lacks established global goodness-of-fit metrics, the results cannot be interpreted as definitive evidence of model generalizability beyond this sample. Future research could therefore wish to cross-validate the proposed model using CB-SEM or replicate it with independent samples. Moreover, the cross-sectional design restricts conclusions regarding the directionality of the observed relationships. Longitudinal designs and more heterogeneous samples would allow future studies to assess the stability and robustness of these associations over time.

Beyond methodological considerations, the boundary conditions of the present findings remain underexplored. Cultural context may represent an important moderating factor shaping the observed associations. While emotional intelligence emerged as a strong antecedent of flourishing within this Mexican sample, it remains uncertain whether this relationship would hold across cultures that differ in emotional expression, social norms, or sustainability practices. In Mexico, cultural norms and collective values—such as environmental social identity and connection with nature—play a key role in shaping sustainable consumption behaviors (Cavazos-Arroyo & Sánchez-Lezama, 2022). Prior evidence also suggests that consumer responsibility for sustainable consumption may be influenced by experiential and contextual factors, such as the pleasure derived from interactions with natural environments beyond emotional and cognitive processes alone (Toldos et al., 2025). Future research could therefore examine whether cultural and socioeconomic contexts jointly moderate how emotional intelligence and flourishing translate into consumer responsibility for sustainable consumption. Comparative studies may be particularly valuable, as prior research indicates that collectivistic cultures differ from individualistic ones in emotional expression, self-perceptions, and reported levels of emotional intelligence (Yang, Zadorozhny, Petrides, Ng, & Pan, 2025).

Sociodemographic heterogeneity also warrants attention. While the present sample allowed for a balanced two-group analysis by gender, the distribution across age (five bands) and income (seven bands) resulted in underpowered and unbalanced cells for a reliable multi-group analysis. Future studies should therefore be a-priori powered to test age- and income-based differences, pre-specify groupings, and establish measurement invariance (MICOM) before comparing structural paths with permutation-based PLS-MGA (Hair et al., 2022; Henseler et al., 2015). As complementary strategies, researchers could model age and income as continuous moderators (interaction terms) or apply segmentation methods (e.g., FIMIX-PLS/PLS-POS) to detect unobserved heterogeneity.

Additional limitations relate to data collection and measurement. The reliance on a single-source, self-reported survey raises the possibility of common method bias. Although procedural remedies were applied, this concern cannot be fully eliminated. Future studies could mitigate this issue by incorporating multi-source data or temporal separating measures. Furthermore, while most scales demonstrated acceptable levels of reliability and validity, a few items displayed weaker performance, which may have constrained the explanatory power of certain constructs. Refining these measures or developing multidimensional scales that capture cognitive, emotional, moral, and sociocultural facets of consumer responsibility for sustainable consumption would strengthen future research.

Finally, future studies could expand the model by examining additional psychological and contextual variables to deepen the understanding of consumer responsibility for sustainable consumption. Constructs such as materialism, ethnocentrism, consumerism, socioeconomic status, and broader cultural orientations may provide further insights into the multifaceted influences on sustainable consumption behaviors. These factors may also help clarify how sustainable

consumption relates to individuals' sense of purpose and overall well-being. Given that previous studies suggest a positive link between sustainable behaviors and happiness, it would be particularly valuable to examine whether consumers with a strong sense of responsibility for sustainable consumption experience greater life satisfaction and happiness. Exploring whether pro-environmental behaviors lead to higher levels of subjective wellbeing, positive emotions, and improved outcomes could uncover important psychological and behavioral dynamics.

Taken together, these limitations highlight avenues for future research to develop a more comprehensive understanding of the psychological, cultural, and social underpinnings of sustainable consumption and its broader implications for individual and societal wellbeing.

CRedit authorship contribution statement

M. Paz Toldos: Writing – review & editing, Writing – original draft, Visualization, Supervision, Resources, Project administration, Methodology, Investigation, Conceptualization. **Josep Rialp-Criado:** Writing –

review & editing, Writing – original draft, Visualization, Validation, Software, Investigation, Formal analysis, Data curation. **Carlos Agredano:** Visualization, Resources, Methodology, Investigation, Data curation.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used Grammarly and TECgpt in order to improve the language and readability of the manuscript. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Table A1
Inner model VIF confidence intervals.

	Original sample (<i>O</i>)	Sample mean (<i>M</i>)	2.5%	97.5%
CRSC - > PEB	1.000	1.000	1.000	1.000
CRSC - > WPEP	1.089	1.095	1.037	1.174
EI - > Flourishing	1.000	1.000	1.000	1.000
Flourishing - > CRSC	1.153	1.163	1.080	1.270
Flourishing - > Frugality	1.000	1.000	1.000	1.000
Flourishing - > PN	1.000	1.000	1.000	1.000
Frugality - > CRSC	1.147	1.157	1.073	1.263
PEB - > WPEP	1.089	1.095	1.037	1.174
PN - > CRSC	1.163	1.173	1.085	1.290

Note. VIF = variance inflation factor; *O* = original sample; *M* = sample mean.

Table A2
Bootstrapped confidence intervals for HTMT ratios.

	Original sample (<i>O</i>)	Sample mean (<i>M</i>)	2.5%	97.5%
EI < -> CRSC	0.385	0.389	0.264	0.517
Flourishing < -> CRSC	0.386	0.387	0.257	0.510
Flourishing < -> EI	0.949	0.950	0.902	0.996
Frugality < -> CRSC	0.470	0.473	0.329	0.618
Frugality < -> EI	0.276	0.286	0.188	0.401
Frugality < -> Flourishing	0.311	0.319	0.207	0.449
PEB < -> CRSC	0.379	0.379	0.249	0.510
PEB < -> EI	0.328	0.334	0.232	0.438
PEB < -> Flourishing	0.340	0.341	0.240	0.439
PEB < -> Frugality	0.140	0.159	0.091	0.233
PN < -> CRSC	0.665	0.666	0.547	0.772
PN < -> EI	0.276	0.277	0.162	0.391
PN < -> Flourishing	0.346	0.347	0.233	0.460
PN < -> Frugality	0.335	0.336	0.206	0.464
PN < -> PEB	0.496	0.495	0.390	0.591
WPEP < -> CRSC	0.407	0.406	0.285	0.528
WPEP < -> EI	0.200	0.211	0.109	0.331
WPEP < -> Flourishing	0.239	0.239	0.131	0.351
WPEP < -> Frugality	0.058	0.095	0.042	0.169
WPEP < -> PEB	0.429	0.429	0.321	0.529
WPEP < -> PN	0.480	0.481	0.382	0.576

Note. *O* = original sample; *M* = sample mean.

Table A3
Measurement invariance assessment: MICOM Step 2.

	Original correlation (r)	Correlation permutation mean	5.0%	Permutation p value
CRSC	1.000	0.995	0.987	0.982
EI	0.998	0.999	0.996	0.189
Flourishing	0.999	0.999	0.998	0.450
Frugality	1.000	0.994	0.978	0.817
PEB	0.996	0.998	0.994	0.187
PN	1.000	0.999	0.998	0.992
WPEP	1.000	0.998	0.994	0.985

Table A4
Multigroup Analysis (MGA) results based on bootstrapping.

	Difference (Group_female - Group_male)	1-tailed (Group_female vs Group_male) p value	2-tailed (Group_female vs Group_male) p value
CRSC - > PEB	0.041	0.343	0.686
CRSC - > WPEP	0.005	0.476	0.951
EI - > Flourishing	-0.020	0.714	0.572
Flourishing - > CRSC	0.063	0.253	0.506
Flourishing - > Frugality	-0.039	0.638	0.725
Flourishing - > PN	-0.090	0.809	0.382
Frugality - > CRSC	0.107	0.115	0.229
PEB - > WPEP	-0.016	0.567	0.865
PN - > CRSC	-0.139	0.915	0.171

Table A5
Specific indirect effects: Multigroup Analysis (MGA) results.

	Difference (Group_female - Group_male)	1-tailed (Group_female vs Group_male) p value	2-tailed (Group_female vs Group_male) p value
Flourishing - > PN - > CRSC - > WPEP	-0.017	0.801	0.399
EI - > Flourishing - > PN - > CRSC - > PEB - > WPEP	-0.005	0.754	0.492
Flourishing - > Frugality - > CRSC - > WPEP	0.005	0.253	0.506
Flourishing - > PN - > CRSC - > PEB	-0.018	0.750	0.499
Flourishing - > Frugality - > CRSC - > PEB	0.009	0.197	0.394
Flourishing - > CRSC - > PEB - > WPEP	0.006	0.256	0.513
PN - > CRSC - > PEB - > WPEP	-0.008	0.636	0.727
Flourishing - > Frugality - > CRSC - > PEB - > WPEP	0.002	0.240	0.481
EI - > Flourishing - > CRSC	0.048	0.264	0.528
CRSC - > PEB - > WPEP	0.008	0.420	0.841
EI - > Flourishing - > Frugality	-0.037	0.662	0.676
EI - > Flourishing - > CRSC - > PEB - > WPEP	0.005	0.266	0.532
EI - > Flourishing - > PN	-0.077	0.828	0.344
EI - > Flourishing - > Frugality - > CRSC - > WPEP	0.004	0.263	0.526
EI - > Flourishing - > PN - > CRSC - > PEB	-0.015	0.760	0.480
Flourishing - > CRSC - > PEB	0.021	0.245	0.489
EI - > Flourishing - > CRSC - > WPEP	0.011	0.276	0.552
EI - > Flourishing - > Frugality - > CRSC - > PEB	0.007	0.207	0.415
Frugality - > CRSC - > PEB	0.037	0.102	0.204
Flourishing - > CRSC - > WPEP	0.014	0.267	0.533
EI - > Flourishing - > CRSC - > PEB	0.016	0.255	0.510
Frugality - > CRSC - > WPEP	0.024	0.158	0.317
PN - > CRSC - > PEB	-0.020	0.632	0.737
EI - > Flourishing - > PN - > CRSC - > WPEP	-0.014	0.810	0.381
PN - > CRSC - > WPEP	-0.027	0.699	0.603
Flourishing - > PN - > CRSC - > PEB - > WPEP	-0.006	0.746	0.509
Frugality - > CRSC - > PEB - > WPEP	0.011	0.147	0.294
EI - > Flourishing - > Frugality - > CRSC	0.018	0.238	0.477
EI - > Flourishing - > PN - > CRSC	-0.069	0.921	0.158
EI - > Flourishing - > Frugality - > CRSC - > PEB - > WPEP	0.002	0.250	0.500
Flourishing - > PN - > CRSC	-0.084	0.914	0.172
Flourishing - > Frugality - > CRSC	0.024	0.226	0.452

Data availability

Data will be made available on request.

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