





RESEARCH ARTICLE

Examining a theoretical model of eco-anxiety on consumers' intentions towards green products

Nitika Sharma¹  | Arminda Paço²  | Raysa Geaquinto Rocha^{2,3}  |
Maria Palazzo⁴  | Alfonso Siano⁵

¹Department of Marketing, International Management Institute, New Delhi, India

²Research Center in Business Sciences (NECE-UBI), University of Beira Interior, Covilhã, Portugal

³Centre for Work, Organisation and Society, Essex Business School, University of Essex, Colchester, UK

⁴Department of Economics, Universitas Mercatorum, Rome, Italy

⁵Department of Political and Communication Sciences, University of Salerno, Fisciano, Italy

Correspondence

Raysa Geaquinto Rocha, Centre for Work, Organisation and Society, Essex Business School, University of Essex, Wivenhoe Park, Colchester CO4 3SQ, UK.
Email: raysa.rocha@essex.ac.uk

Funding information

FCT – Foundation for Science and Technology, Grant/Award Number: UIDB/04630/2020

Abstract

Given the current levels of pollution and global warming concerns, consumers started to be more and more involved with environmental issues, becoming more anxious regarding the state of natural resource depletion. Thus, this research aims to examine the concept of eco-anxiety among consumers who are aware of the repercussions of the current environmental complexities, analysing how or to what extent it affects them, bearing in mind that individuals may tend to escape from stressful environmental issues. A conceptual model will be tested using data from consumers of two countries representing very different regions and socioeconomic contexts: India and Italy. An online self-administered questionnaire was distributed in India and Italy between February and March 2022. Employing partial least squares structural equation modelling (PLS-SEM), a sample of 557 individuals was collected (316 from India; 241 from Italy). The study examined the measurement model to assess validity and reliability, as well as the structural model to test the hypotheses. The results indicate that consumers of India and Italy tend to avoid thinking about environmental crises trying to normalise their plight. As observed, eco-anxiety positively influences emotional dissonance, and escapism is positively related to this construct, but intentions to buy green products are found to be insignificant. Practical implications were drawn for policy-makers and practitioners, indicating different orientations according to the region.

KEYWORDS

cognitive dissonance theory, eco-anxiety, emotional dissonance, escapism, green buying intentions, guilt & regret, protection motivation theory

1 | INTRODUCTION

Climate change, global warming, and depletion of ozone layers are gauges of natural catastrophe, which is a consequential threat to humans and the ecosystem. Knowledge of these disastrous affairs bells the concern for the environment and own health, at least among the individuals who are conscious of the current environmental situation (Sharma, Paço, et al., 2022). Moreover, the impact of current

environmental issues not only impacts our physical health but also explicitly and overtly strikes our mental health (Usher et al., 2019) which may involve distress, anxiety, sleeping disorder, depression cognitive discomfort, emotional turmoil, and, in an extreme case, it might also elicit suicidal ideation. These negative emotions beget the 'eco-anxiety', 'eco-grief', 'eco-distress', 'eco-angst', 'earth emotions', and 'solastalgia' that indicates the stress, pressure or tension ascribed to detrimental environmental conditions among the conscious

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2023 The Authors. *Corporate Social Responsibility and Environmental Management* published by ERP Environment and John Wiley & Sons Ltd.



consumers and feel emotionally drain while imagining the future of themselves, their families and future generation (Coffey et al., 2021).

Presently, the situation of the environment and the high level of pollution is a major concern at the individual level, and collectively for policymakers, marketers, and society, as it is a begetter of unbalancing ecosystem, attenuation of the ozone layer and reasons for natural holocaust (Verplanken et al., 2020). This emanation of natural unrest causes psychological discomfort and emotional turmoil (Sharma & Paço, 2021). Thus, the present study attempts to examine the concept of 'eco-anxiety' as a phenomenon, that initiates inner uneasiness, particularly among consumers who are aware of regarding repercussions of the current environmental complexities, at the same time it begets emotional dissonance. The case of current environmental issues might unfold a concern of eco-anxiety (Hogg et al., 2021) and this can trigger negative emotions. It has been articulated that individuals attempt to normalise or avoid resentfulness (Sharma & Lal, 2020). Given this, another objective of the present study is to examine the process of marginalisation of this cognitive uneasiness in environmental deterioration times.

Hence, this research examines anxiety consumers experience towards ecological settings, and how, or to what extent, it affects them. Individuals may tend to escape or cope with these stressful environmental issues. As previous studies have indicated, environmental concerns often give rise to emotional distress, triggering feelings of anxiety, guilt, and grief. Individuals seek ways to alleviate this anxiety through strategies such as withdrawal, acceptance, confrontation, social support, and avoidance (Ágoston et al., 2022). Prior research has indicated that the simplest approach to dealing with anxiety is to remove oneself from the situation (Sun & Chang, 2021) rather than taking action to solve the problem. Consequently, drawing support from the cognitive dissonance theory (CDT) and the protection motivation theory (PMT), we propose a model to investigate changes in behaviour aimed at addressing the challenges posed by the environmental crisis. Both theories explain dual perspectives via the change in course of action or change in cognition to normalise emotional turmoil in general. The present study postulated that these theories can be used to analyse emotional distress caused by eco-anxiety. It implies that consumers who buy green products experience a feel-good factor in doing something good for the environment (Sharma, Lal, et al., 2022); in the case of non-buying green products, they tend to experience negative emotions like fear, guilt, or regret. Consequently, consumers attempt to avoid complex situations and calm down their stress levels using different means (Sharma & Paço, 2021). Thus, to alleviate the pressures stemming from environmental concerns and to immediately attain a sense of gratification or relief, individuals often resort to engaging in escapism behaviours. This involves entering a state of mind characterised by flow, wherein the problem is temporarily set aside. Alternatively, some individuals aim to address the environmental challenges by intending to purchase green products as a solution. This study aims to delve into precisely these dynamics and explore their intricacies. Therefore, with parallel goals, the present study first attempts to examine the impact of eco-anxiety on the emotional toll of consumers, and second, investigates

the ramifications of emotional dissonance through escapism and intentions to buy green products. To embroider this study, the construct of guilt and regret are also studied as consequent to negative emotion to understand its mediation effect on emotional dissonance, escapism, and purchase intentions of consumers.

Additionally, this study examines the consumer behaviour of Indian and Italian customers. Both countries have peculiar (and different) economic, social, and demographic characteristics. Italy and India have high levels of population density (India 464 per Km² vs. Italy 206 per Km²) and are affected by environmental concerns in different ways, but they differ in terms of cultural and social values. Brewer and Venaik (2011) highlighted that capitalist geographical areas, such as those of Western nations (Europe, USA, and South America), including Italy, usually are less affected by power distance issues, such as verticalism and paternalism. Hence, in these countries, the power is shared, and members of society view themselves as equals. Instead, in countries with high power distance, such as Asian and African countries, including India, people accept an unequal distribution of power and social hierarchy (Brewer & Venaik, 2011). India shows a higher power distance (77%) than Italy (50%) according to the cultural survey tool, the Culture Compass.¹

Therefore, this study's comparison between India and Italy examines how eco-anxiety and its related constructs manifest within distinct cultural, economic, and social contexts. India and Italy offer disparate backgrounds characterised by pronounced variations in population density, cultural values, and power distance dynamics. These differences are anticipated to influence how individuals respond to environmental concerns and cope with eco-anxiety.

India's high population density and cultural emphasis on power distance might lead to distinct coping mechanisms and emotional responses among its consumers. Conversely, Italy's lower population density and cultural inclination towards shared power could result in different psychological and behavioural reactions. By analysing these two countries, the study aims to uncover potential nuances in how consumers from each nation experience eco-anxiety, emotional dissonance, escapism, and their intentions to buy green products.

This study contributes to the literature with pioneering research regarding environmental anxiety. Moreover, through this cross-country comparison, the study contributes to the literature by exploring how environmental anxieties are navigated in divergent cultural settings. The dire consequences of environmental detrimental situations are faced differently in Asian and Italian countries (Jancar-Webster, 2019; Li & de Oliveira, 2021). By recognising the interplay between eco-anxiety and its outcomes within the contexts of India and Italy, the research seeks to provide insights that extend beyond singular cultural boundaries. This approach not only enriches our understanding of eco-anxiety but also lead learn more better, thoughtful ways of dealing with environmental worries and encouraging people to act sustainably, while taking different cultures into account.

Altogether, the present unhackneyed model of consumer behaviour is to recognise the impact of eco-anxiety on the emotional

¹<https://www.hofstede-insights.com/country-comparison/india,italy/> (accessed at 06/06/2022).

dissonance of consumers and how consumers attempt to tranquil their emotional toll via buying green products or avoiding the current situation via by addressing the following research questions. RQ 1 seeks to explore how eco-anxiety affects consumers' emotional dissonance about environmental issues. RQ 2 aims to investigate the extent to which negative emotions are mediated by guilt and regret in their relationship with emotional dissonance, escapism, and intentions to purchase green products. Finally, RQ 3 aims to compare the responses of Indian and Italian consumers to the impact of eco-anxiety on emotional dissonance, escapism, and intentions to purchase green products.

2 | THEORETICAL FRAMEWORK

Consumer behaviour is a complex and multidimensional concept, accordingly, we employed PMT and CDT to approach the antecedents (i.e., emotional dissonance, eco-anxiety) and the consequences (i.e., guilt and regret, escapism, purchase intention) of the consumer behaviour. Along these lines, PMT concerns the motivations for changing behaviours, while CDT concerns the emotions felt after consumer behaviours.

2.1 | Protection motivation theory

Protection motivation theory was initially created to comprehend health-protective behaviour (Kothe et al., 2019; Prentice-Dunn & Rogers, 2001; Rogers, 1975). This theory states that people who have experienced tragedies are more inclined to change their behaviour to prevent similar events in the future (Daryanto et al., 2022; Sattler et al., 2000). It deals with motivation for changing behaviours (Pang et al., 2021), meaning that one will engage in protective behaviour due to a coping appraisal or threat appraisal (Kothe et al., 2019; Prentice-Dunn & Rogers, 2001). The more one perceives the threat as severe, the greater their intention to have protective behaviour (Kothe et al., 2019; Prentice-Dunn & Rogers, 2001). Furthermore, it has been used as a model to understand marketing communication (Tanner et al., 1989) and the commitment to pro-environmental behaviours (Kothe et al., 2019). In our proposed model this idea is represented by the eco-anxiety regarding environmental problems, that is, the more someone perceives and gets anxious about an issue, that will lead to guilt and regret, and in consequence, he/she will try to ameliorate that feeling (in our case by intending to buy green).

Moreover, PMT offers a more comprehensive set of predictors for human behaviour. Concerning pro-environmental behaviour, it assists in identifying drivers and barriers to acceptance of environmental adapting behaviour (Shafiei & Maleksaeidi, 2020). For example, Kim et al. (2013) found that PMT constructs like perceived severity, self-efficacy, and response efficacy concerning climate change adjustment were significant predictors of Korean and American students' intentions to engage in pro-environmental behaviours. Additionally, PMT was applied in the case of the COVID-19 pandemic, where people who perceive it as an event caused by human actions are more

concerned about environmental problems, likely motivating their pro-environmental behaviour (Daryanto et al., 2022).

2.2 | Cognitive dissonance theory

Cognitive dissonance theory 'centres around the idea that if a person knows various things that are not psychologically consistent with one another, he will, in a variety of ways, try to make them more consistent' (Festinger, 1962, p. 93). It is a motivating state of affairs because it impels one to change their opinion or behaviour. Cognitive dissonance is a mental conflict; it makes individuals feel uncomfortable and uneasy, especially if the disparity between their personal beliefs and actions involves an element that is determinative of their sense of self. For instance, behaving in manners that are not aligned with one's values can result in intense discomfort feelings. Moreover, it impacts decision-making processes (Soutar & Sweeney, 2003). Therefore, it can be lowered by adding fresh and more reliable elements to the context (Tamar et al., 2020). The proposed model of this study links the environmental dissonance to guilt and regret and green purchasing intention which aligns with this theory.

Concerning consumers, dissonance comprises cognitive and emotional dimensions (Soutar & Sweeney, 2003; Sweeney et al., 2000). It is a rich construct, with a variation in the consumer experience, whether a consumer will experience dissonance or not (Bell, 1967; Soutar & Sweeney, 2003). It is a condition that can be present to a greater or lesser degree during the phases of the decision-making process (Soutar & Sweeney, 2003). Likewise, people experience different anxiety thresholds (Oliver, 1997; Soutar & Sweeney, 2003). Accordingly, it has been used to clarify the (in)consistency of consumers' responsible behaviours towards the environment (Thøgersen, 2004) and buying behaviour in organic markets (Hidalgo-Baz et al., 2017). Moreover, CDT supported a theoretical framework related to the outcomes of low carbon purchasing behaviour on other behaviours, that is, recycling behaviour, garbage sorting behaviour via self-efficacy, and environmental self-identity (Yue et al., 2021).

3 | RESEARCH HYPOTHESES AND MODEL PROPOSAL

Lately, a growing number of individuals have been reporting fear for themselves and future generations manifesting feelings of loss and resentment as they observe the effects of climate change (Coffey et al., 2021). This causes anxiety and concern regarding the environmental crises and boosts the discussion around the eco-anxiety (EA) concept (Hogg et al., 2021). Eco-anxiety is a reasoned (rational) reaction to the ecological hazard that humankind and the planet face (Hogg et al., 2021; Pihkala, 2020). Some individuals present anxiety symptoms because of environmental depletion and climate change, and because they fear the future of humankind and the planet. Pihkala's (2020) study, in the scope of environmental education, concluded that eco-anxiety was a wide phenomenon, strongly related to several



ecological emotions, underlying that most manifestations of eco-anxiety are non-pathological and that eco-anxiety can be considered an adaptive response to the nowadays environmental problems. Research about eco-anxiety is scarce once it is a developing field. Hogg et al. (2021) defend that a more precise understanding of the antecedents and outputs of eco-anxiety in different populations is required. These authors contributed to the development of this area of research by developing an eco-anxiety scale and discovering that individuals were anxious about a range of environmental aspects and their own negative impact on the planet. This anxiety is due to diverse issues ranging from climate change to pollution in general, and are interrelated, making it possible to find four dimensions of eco-anxiety: affective symptoms, rumination, behavioural symptoms, and anxiety about a personal negative impact on the planet. More recently, Kurth and Pihkala (2022: 1) found a specific form of eco-anxiety, that is the 'practical eco-anxiety, and it is experienced at 'the right time and to the right extent (...) not only reflects well on one's moral character but can also help advance individual and planetary wellbeing', being considered the difficulty that people experience when thinking about how to respond to ecological problems like climate change.

In turn, emotional dissonance is a feeling of discomfort when one assesses an emotional experience as a threat to their identity. When experiencing an emotion that does not match the subject's identity, the subject produces a second feeling. This feeling produces consequences concerning regulating emotions and the tendency to act. This discomfort results from contradictory cognitive elements when decisions are made (e.g., knowledge of the consumers' environment, attitudes, and past behaviour) (Festinger, 1957). Therefore, emotional dissonance results from the subjective assessment of an emotional experience (Jansz & Timmers, 2002). In other words, it is a conflict between emotions experienced and expressed to adjust to displayed rules, that is, if an inconsistency occurs, individuals try to change their beliefs and attitudes or change their behaviours to avoid conflict and reduce dissonance (Johnson et al., 2021).

Trying to explain the causal relationship between anxiety and dissonance, we can say that anxiety arises when consumers observe a severe problem for which they feel helpless; in turn, dissonance seems to arise when consumers acknowledge a problem but do not want to engage in action to solve it. Thus, these two emotional states probably occur alongside, so those individuals who feel more eco-anxiety engage more in escapism, and those who experience dissonance engage more in green purchasing to appease the dissonance.

Given the previous considerations and having in mind that 'eco-anxiety is found to be closely connected with many difficult emotions, such as grief, guilt, anger, and despair' (Pihkala, 2020, p. 1), it is possible to extrapolate a relationship between these two constructs. By this, the following hypothesis was formulated:

Hypothesis 1. Eco-anxiety positively influences emotional dissonance.

Positive and negative emotions guide (partially) consumer ethical behaviour. Guilt, for example, is a moral emotion that has a crucial role in consumer situations that are ethically questionable (Mills &

Groening, 2021; Steenhaut & Van Kenhove, 2006). Regret is an emotional comparison associated with self-blame in a decision (Dedeoğlu & Kazançoğlu, 2010). Regret or guilt appears when one considers the result of something (Attiq et al., 2021; Zeelenberg & Pieters, 2007). 'Consumer guilt is the type of guilt that is related specifically to consumption decision situations' (Dedeoğlu & Kazançoğlu, 2010, p. 464). To avoid guilt, some consumers seek to behave ethically and buy responsibly; when this does not happen, they feel stress/dissonance (Xu et al., 2011). In their study, Sharma and Paço (2021) found that negative green buying behaviour leads to consumer guilt, which in turn leads to moral disengagement. Negative emotions reduce the intention to repurchase since post-purchasing guilt can result in feelings of regret. Although they are different emotions, they can be highly correlated (Kazancoglu et al., 2021). Therefore, it is necessary to understand rational mechanisms to reduce guilt feelings in consumers' behaviour (Steenhaut & Van Kenhove, 2006). It seems that following dissonance, guilt is experienced, and to appease guilt individuals engage in green purchasing as a change action or ignore the process of green buying by the change in cognition.

Having in mind the concept of emotional dissonance exposed above, it is hypothesised that the feeling of emotional discomfort felt by an individual affects also his/her feeling of guilt:

Hypothesis 2. Emotional dissonance positively influences guilt & regret.

Being more popular in the fields of psychology and sociology, the concept of escapism, applied to consumer research, appeared just in the 1980s, starting by analysing the changes in buying consumer habits and searching for new experiences. Escapism (ESC) is a behaviour engaged in coping with unpleasant emotions, for example, stress and anxiety (Darrat et al., 2016), and scape is conceived to bring 'a means of gratification that could make up the frustrations of everyday life' (Cova et al., 2018, p. 451). Escape theory states that the awareness of an issue might be so painful that consumers take compulsive buying, binge eating or as a way of escape (Yi, 2021). In line, Cova et al. (2018), refer that consumers can dive into four types of escapes: turnerian (go to extraordinary places to escape from everyday life), restorative (go to places between workplaces and residence, that consumers perceive as pleasant), mundane (common/everyday places and experiences to scape), and escape to 'warlike and painful experiences' (actions in which pain is treated as a form of escape). Escaping from these uncomfortable situations to avoid anxiety leads to a disconnect from reality and possible compulsive behaviour (Darrat et al., 2016). Also, it is a convenient option to avoid cognitive discomfort or plights (Sharma & Lal, 2020). Thus, it is conjectured that the emotional discomfort felt by an individual can lead him/her to act in such a way they would try to escape from a patron. Hypothesis 3 was formulated accordingly.

Hypothesis 3. Emotional dissonance positively influences escapism.

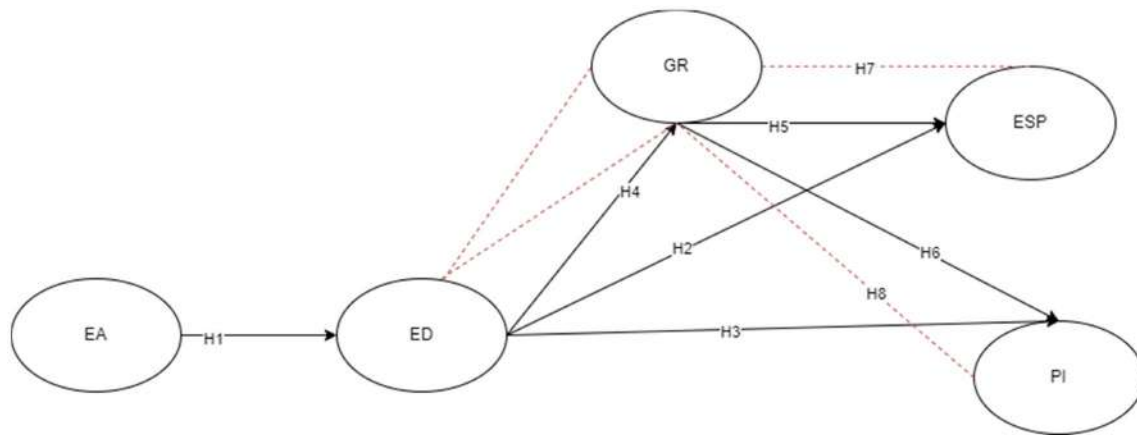


FIGURE 1 Proposed model.

Purchase intention (PI) motivates consumer behaviour (Costa et al., 2021). Thus, it is 'a prerequisite for stimulating and pushing consumers to actually purchase products and services' (Zhuang et al., 2021, p. 3). It can be explained by consumer behaviour theory. Then, in terms of consumers' green purchase intention, there are three main categories, namely, consumer individual characteristics, cognitive factors, and social factors. Moreover, green purchase intention is strongly positively correlated with green perceived value, green trust, and attitude (Zhuang et al., 2021). According to Johnson et al. (2021) opinion, usually cognitive dissonance negatively impacts purchase intention. In fact, positive and negative anticipated emotions are compelling in shaping behavioural green intentions (Odou & Schill, 2020). This situation is felt with more intensity when the decision is relevant and asks for some type of commitment. The opposite may happen when dealing with emotional dissonance. Thus, assuming that a way of reducing emotional dissonance could be by buying certain items, or having that intention, Hypothesis 4 arises.

Hypothesis 4. Emotional dissonance positively influences purchase intention.

According to Hurst and Sintov (2022), guilt can positively influence attitudes and pro-environmental behaviour and influence individual cognitions and future ecological decision-making (Mukherjee & Chandra, 2022). As stated by Tracy and Robins (2007) stated, guilt can be considered a negative emotion that activates actions such as regret, reparation, or compensatory efforts. Thus, predicting guilt can nurture and stimulate an individual to make decisions and act pro-environmentally friendly, as reported in the study of Theotokis and Manganari (2014). Also, in the research of de Lima et al. (2019), the findings indicate that guilt is a significant factor with the potential to encourage green product purchase intention. Additionally, Schneider et al. (2017) showed in their pilot study that people may experience guilt when making a non-environmentally friendly decision, which is necessary to promote sustainable behaviour through motivating consumers. Also,

the element of morality has been recognised in green buying and when consumers are unable to perform mindful consumption, they might experience remorsefulness which influences their future actions (Sharma, Paço, et al., 2022) Thus, it is possible to assume that feelings of guilt and regret can affect the intention of buying in a certain way, as is stated in the next hypothesis:

Hypothesis 5. Guilt & regret positively influence purchase intention.

Some people usually evade from those activities that can result in negative feelings, like guilt for instance, and seek those that will lead to positive situations or emotions, like pride. As such, motivating people to anticipate their feelings makes sense and can lead to eco-friendly behaviour (Schneider et al., 2017). Additionally, these negative emotions directly or indirectly need to be suppressed to attain self-exoneration and this can be done by avoiding or ignoring the situation (Sharma & Paço, 2021), or even by finding a form of refuge, releasing pressure, and letting go (Jafari & Maclaran, 2013), feeling, that way, more alive (Scott et al., 2017). Thus, feelings of guilt and regret can lead individuals to escape and act differently in order to diminish their state of discomfort or anxiety, as is presented in the next hypothesis:

Hypothesis 6. Guilt & regret positively influence escapism.

While primarily, emotional dissonance creates an inconsistency between what is felt and consumers' actions, it is worth understanding if there is a relationship between feelings of guilt and regret. Or even a purchase intention. Accordingly, in addition to the direct effect of guilt and regret on escapism and purchase intent, it is also supposed that the construct of guilt & regret could have a mediator role in the model developed in this study. Sharma and Paço (2021) in their study about a guilt-free mechanism for non-green buying behaviour, also demonstrate a mediating effect of consumers' guilt. Thus, the two last hypotheses are shown below:

TABLE 1 Sample characteristics.

Variables	Classification	Italy (n = 241)	Percentage	India (n = 316)	Percentage
Gender	Male	131	54%	155	49%
	Female	110	46%	161	51%
Age	18–23	79	33%	96	30%
	24–29	45	19%	56	18%
	30–35	47	20%	83	26%
	36–41	40	17%	49	16%
	Above 41	30	12%	32	10%
Education	Doctorate	17	7%	45	14%
	Graduation	136	56%	171	54%
	Post-graduation	55	23%	56	18%
	Professional course/Secondary	33	14%	44	14%
Occupation	Business	31	13%	36	11%
	Government job	22	9%	31	10%
	Homemaker	0	0%	6	2%
	Private job	72	30%	89	28%
	Professional work	30	12%	47	15%
	Student/fresher	86	36%	107	34%
Income (family income/month)	136\$–408\$	42	17%	87	28%
	409\$–680\$	46	19%	95	30%
	681\$–952\$	45	19%	39	12%
	953\$–1225\$	32	13%	48	15%
	Above 1225\$	76	32%	47	15%

Hypothesis 7. Guilt & regret mediate emotional dissonance and escapism.

Hypothesis 8. Guilt & regret mediate emotional dissonance and purchase intention.

Supported by the literature review, we propose a conceptual model (Figure 1) to determine the hypothesised relationship between the constructs offered above.

We argue that the differences between India and Italy will impact the framework in Figure 1. Therefore, Hypothesis 9 posits significant structural disparities within the proposed model between Indian and Italian consumers.

Hypothesis 9. The structural relationships within the proposed model exhibit significant differences between Indian and Italian consumers.

4 | METHODS

4.1 | Data collection and sample description

The sample of respondents was gathered, for convenience, from Italy and India. Researchers conducted this study using snowball and

network samples incorporating e-mails originating from social networks, alumni associations, groups, and referrals (Landers & Behrend, 2015). Such samples involve participants who are in contact with the researchers (Roulin, 2015). The participants were recruited among friends, colleagues and students who attended classes in the universities where the authors teach and research. After that the respondents were selected, and one author contacted randomly several of them to ensure the genuineness of the respondents. There are advantages to using the convenience method, including reduced costs and no need for a list of all the elements in a population (Sharma & Paço, 2021). It has problems regarding representativeness and bias, however, which cannot be controlled or measured. Therefore, results from the data cannot be generalised beyond the sample (Brewis, 2014).

The two geographical areas were chosen to compare developed and developing nations, with distinct economic, social and cultural perspectives regarding eco-anxiety feelings and sensitivity to the environment.

India is the second biggest developing economy in the world, with a growth in GDP (2021–22) of 8.9% (<https://www.ibef.org/economy>). Furthermore, Indian consumers are progressively becoming concerned about environmental issues and paying attention to the advantages of eco-friendly behaviours (Jaiswal & Singh, 2018). Nevertheless, sustainable concerns were found to be different in developing areas—for example, India and China—because of customers' cognitive assessment towards sustainable behaviour in distinct cultural backgrounds

(Sreen et al., 2020). Actually, despite the Indian progress in sustainable development (Rezaee et al., 2019), in 2019, the International Energy Agency highlighted that per capita CO₂ emissions in this area have reached a very high level of 1.87 metric tons (<http://energyatlas.iea.org/>). Thus, India can be considered the world's biggest CO₂ emitters, after China and the US (<https://data.worldbank.org/>). This means that there is a trend in exploring the existing link between economic growth and sustainability in India (Orhan et al., 2021), but, at the same time, companies, consumers, and other key stakeholders are not fully aware of the role played by this revolutionary approach (Villanthenkodath & Mahalik, 2022; Vollero et al., 2020, 2022).

The situation is quite different in Europe (EU) (Lukman et al., 2016; Palazzo, 2019). The EU acknowledged the challenge faced by business sectors to combine environmental outcomes with economic performance and tried to put sustainability at the core of its economic growth (EC, 2011). The EU decided to convert environmental issues into economic advantages and to offer green services/products for consumers, by creating the EU's action plan for sustainable consumption and production (SCP) and sustainable industrial policy (SIP). This plan, set in 2008, has one crucial aim: 'to improve the energy and environmental performance of products and foster their uptake by consumers' (EC, 2011, p. 2). Italian consumers are, since then, trying their best to accept and select eco-friendly goods, instead of traditional ones (Ishaq et al., 2021; Lanzini et al., 2016). OCIS, an international observatory for social cohesion, released the 2018 report 'Sustainable Consumption in Italy', which records a surprisingly high number: 63.4 per cent of the Italians surveyed have adopted responsible consumption practices, compared to 36.6% who do not (<https://www.socialcohesiondays.com/en/international-observatory-on-social-cohesion-and-inclusion/>). From India, 369 questionnaires were collected, while from Italy, 291 questionnaires were obtained. The initial screening involved assessing respondents' fundamental awareness of environmental issues. This included determining whether respondents were acquainted with prevailing environmental concerns. After eliminating incomplete questionnaires, the final sample comprised 557 individuals. The sample is composed of 557 individuals (316 in India; and 241 in Italy). By country, it shows slight differences and was used as a global one. It is balanced in terms of gender for both geographical areas (in Italy, 54% male and 46% female, while in India, 49% male and 51% female). Regarding the age, the number of people (from 18 to 23) is similar for the two locations (in Italy they are 33%, while, in India, 30%). The same happens for the rest of the sample (people aged from 24 to 29 are, in Italy, 19%, while in India 18%; people aged from 30 to 35 are, in Italy, 20%, while in India 26%; people aged from 36 to 41 are, in Italy, 17% while in India 16%; people with more than 41 years old are, in Italy, 12%, while in India 10%). Most individuals in both areas are graduates (56% in Italy, while in India 54%). Regarding occupation and monthly income, a similar number of responders work in almost all types of jobs (i.e., business; government job; homemaker; private job; professional work; student/fresher), and a similar number of individuals earn different ranges of salary every month. Table 1 shows the sample characteristics.

A questionnaire was used to test the proposed hypotheses. The method of data collection was a survey, taking the form of a self-administered questionnaire, consisting of closed questions, covering

different sections: (i) demographics (gender, age, level of education, occupation, and family income); (ii) questions regarding feelings that express emotional dissonance; (iii) questions related to eco-anxiety challenges and problems consumers experienced in their everyday life; (iv) questions related to the concept of escapism; (v) questions related to post-non-green behaviour/not buying decision feelings (consumer guilt, regret); (vi) questions related to eco-awareness; (vii) questions related to purchasing intentions.

The survey briefly described the main concepts at the basis of the study, specifying that it is a research that focuses on environmental concerns and purchase decisions. In addition, to not prime participants to respond in ways consistent (or inconsistent) with the selected hypotheses, the survey does not present any instructions for the participants, once they agreed to participate.

To scale down the idiomatic and ambiguous terminology in the questionnaire, a pre-test was conducted in both countries. A total of 30 consumers were included in the sample in India, and 20 individuals were pretested in Italy. There was a change in the order of the questions, and a description of eco-anxiety was provided. Finally, the link to the survey was shared via e-mail (the email address list was available on the university's virtual learning environments) along with social media platforms (Facebook and Instagram), from February to March 2022.

4.2 | Measures

The survey relies on scales offered by past research, these scales were selected and some of them were restructured according to the specific topics of this research. In particular, the emotional dissonance was measured via 15 items (Soutar & Sweeney, 2003) and the eco-anxiety was measured via 13 items (Hogg et al., 2021). Taking into account the past research of Darrat et al. (2016), escapism was assessed with three items in total, which were modified in order to reflect the peculiarities of this study. The items for measuring the concepts of guilt and regret were created by the authors starting from findings presented in past studies (Buchanan et al., 2016; Kugler & Jones, 1992), making a total of three items. The indicator of eco-awareness, which was used as a moderator in this study, relied on previously tested scales and was revised according to the setting, with 1 item to measure it. Finally, according to Emekci (2019), purchase intentions were assessed thanks to five items. All the factors rely on a seven-point type Likert scale (1 = strongly disagree to 7 = strongly agree). See the Annex 1 to visualise the constructs, measurement items and scales used.

5 | RESULTS

To contemplate the relationship among EA, ED, GR, ESP, and PI, we employed PLS-SEM (SMARTPLS version 3.3.9) to analyse the data. PLS-SEM is an extensively employed technique in social sciences that assists in predicting the complex model and explaining causal

TABLE 2 Descriptive analysis, reliability and validity.

Variables	Outer loadings	Mean	SD	Composite reliability	Cronbach's alpha	AVE
Eco-anxiety (EA)						
EA1	0.787	3.808	1.624	0.947	0.940	0.582
EA10	0.689	3.623	1.719			
EA11	0.793	3.962	1.697			
EA12	0.800	3.578	1.692			
EA13	0.799	3.808	1.736			
EA2	0.781	3.551	1.705			
EA3	0.745	3.905	1.690			
EA4	0.754	3.144	1.796			
EA5	0.825	3.201	1.820			
EA6	0.775	3.354	1.782			
EA7	0.794	3.713	1.748			
EA8	0.657	3.749	1.730			
EA9	0.696	3.901	1.791			
Emotional dissonance (ED)						
ED1	0.736	2.828	1.660	0.967	0.964	0.665
ED10	0.850	3.385	1.771			
ED11	0.822	3.213	1.765			
ED12	0.853	3.348	1.801			
ED13	0.828	3.118	1.810			
ED14	0.822	3.619	1.879			
ED15	0.825	3.578	1.906			
ED2	0.697	3.466	1.858			
ED3	0.812	3.511	1.952			
ED4	0.815	3.560	1.968			
ED5	0.839	3.312	1.904			
ED6	0.828	2.937	1.865			
ED7	0.830	3.067	1.883			
ED8	0.855	2.898	1.775			
ED9	0.804	2.774	1.754			
Escapism (ESP)						
ESP1	0.674	3.709	1.813	0.815	0.728	0.526
ESP2	0.749	3.377	1.615			
ESP3	0.678	3.127	1.683			
ESP4	0.793	4.011	1.785			
Guilt & regret (GR)						
GR1	0.915	3.934	1.711	0.919	0.867	0.790
GR2	0.910	4.208	1.766			
GR3	0.840	3.873	1.788			
Purchase intentions (PI)						
PI1	0.898	5.117	1.698	0.962	0.950	0.834
PI2	0.939	5.187	1.681			
PI3	0.907	4.961	1.660			
PI4	0.932	5.194	1.634			
PI5	0.889	5.260	1.660			

relationships among the variables (Hair et al., 2019). It involves two ways the process of analysing the data. Formerly, PLS-SEM assesses the data's reliability, validity, and internal consistency. Later, a robustness check is performed to testify the hypothesis.

5.1 | Measurement of the proposed model

The reliability of the constructs was assessed by composite reliability and Cronbach's alpha. As per Table 2, all the values of composite reliability and Cronbach's alpha are more than 0.7, which confirms the internal consistency of the constructs (Hair et al., 2019). Next, the convergent validity was assessed through outer loadings and AVE. As per Hair et al. (2019), loadings should be more than 0.6, and AVE values are recommended to be more than 0.5 to verify the convergent validity. Table 2 reveals that convergent validity has been confirmed, and no items have been deleted as outer loadings were more than 0.6. Further, to assess discriminant validity, Fornell-Larcker and HTMT methods were used. As per Table 3, all the values revealed the highest loadings as compared to other indicators' loading and the HTMT values were below 0.90, confirming no discriminant validity issue (Henseler et al., 2016).

Also, the variance inflation factor (VIF) was assessed for multicollinearity and common method bias (CMB) issues which might be attributable to the issues and complications in measurement measure. The value of VIF should be less than 3.3 to overcome the problem of CMB (Kock, 2017). Also, to assess the critical problem of multicollinearity the value of VIF should be less than 5 (Hair et al., 2019). Table 4 demonstrates that there is no issue of CMB and multicollinearity.

5.2 | Predictive strength of the proposed model

PLS-SEM estimates the predictive competencies and variance of the model via Q^2 and R^2 . Also, the effect size of the relationship can be predicted by f^2 . As per the rule, the greater value of Q^2 suggests less deviation in estimation and original values, and values more than 0 have significant predictive importance, while values lower than 0 infer no predictive importance (Hair et al., 2019). Hair et al. (2019) recommended Q^2 values as 0.02 = small, 0.15 = medium and 0.35 = large. According to Table 5, the Q^2 values of all the variables are medium to large.

The coefficient of determination, that is, R^2 determines the predictive variance of constructs in the model. Interestingly, EA elucidates substantial variability towards ED as the value is 0.445 and the values of ESP, GR, and PI values have reasonable variability explanation in the model. Additionally, the model's prediction is done using effect size via f^2 , which calculates the predictive capability of exogenous variables. Sarstedt et al. (2017) ranked the effect sizes based on 0.02, 0.15, and 0.35. As the results of Q^2 and R^2 suggested, f^2 also suggests the same effect sizes ranging from 0.02 to 0.803. Here also, EA has more size effect on ED (Table 5).

TABLE 3 Discriminant validity.

	EA	ED	ESP	GR	PI
EA	0.763				
ED	0.667	0.816			
ESP	0.560	0.415	0.725		
GR	0.548	0.482	0.645	0.889	
PI	0.421	0.286	0.444	0.582	0.913

TABLE 4 Variance inflation factor.

	EA	ED	ESP	GR	PI
EA		1.000			
ED			1.303	1.000	1.303
ESP					
GR			1.303		1.303
PI					

TABLE 5 Predictive validity.

	R Square	R Square adjusted	Q^2
ED	0.445	0.444	0.291
ESP	0.430	0.428	0.188
GR	0.232	0.231	0.181
PI	0.339	0.337	0.279

5.3 | Structural model assessment of proposed model and hypothesis testing

Using the bootstrapping procedure via the re-sampling method of 5000 sub-samples, the model assessed the beta coefficient and level of significance via t -values and p -values of eco-anxiety (EA), emotional dissonance (ED), escapism (ESP), guilt & regret (GR), and purchase intentions (PI). Furthermore, the moderation effect of consumers of India and Italy is assessed on the model through multi-group analysis (MGA) (Table 6).

H1 hypothesise the relationship between EA & ED which conjectured that anxiety owing to current environmental issues begets emotional turmoil and it was found to be positive and significant which implies H1 is supported as $\beta = 0.669$, t -value = 22.707, p -value <0.05 among both Indian and Italian consumers. Later, the present study examines the impact of ED on how consumers would like to escape the situation or take action to normalise their cognitive discomfort. Here, H2 shows that the relationship between ED and ESP is positive and significant which conjectures that when consumers experience emotional distress, they tend to escape from the situation as results show $\beta = 0.136$, t -value = 2.919, p -value <0.05 among consumers and supports H2. Additionally, H3 proposes a positive relationship between ED and PI, but results show the relationship is insignificant, which implies H3 is not supported as $\beta = 0.007$, t -value = 0.201, p -value >0.05. In addition, the relationship of ED and GR to examine

Hypothesis	Path	Path coefficients (β)	t value	p-values	Results	f^2
H1	EA -> ED	0.669	22.708	0.000	Accepted	0.803
H2	ED -> ESP	0.136	2.919	0.004	Accepted	0.025
H3	ED -> PI	0.007	0.201	0.841	Rejected	0.000
H4	ED -> GR	0.482	13.976	0.000	Accepted	0.303
H5	GR -> ESP	0.581	16.021	0.000	Accepted	0.453
H6	GR -> PI	0.578	17.360	0.000	Accepted	0.389

TABLE 6 Hypothesis testing.

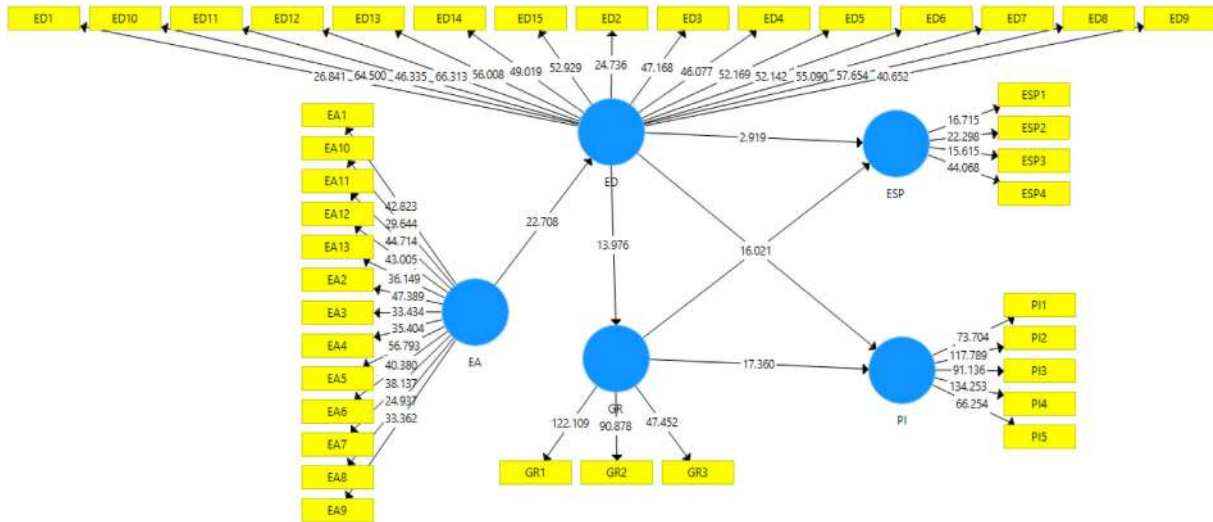


FIGURE 2 Test of the proposed model.

how emotional dissonance influences guilt and regret among consumers and results supports H4, which infers that emotional discomfort positively influences guilt and regret as $\beta = 0.482$, t -value = 13.976, p -value <0.05. It infers that consumers generally attempt to escape from the current situation rather than solve it by buying green products. Moreover, H5 and H6 are supported as it has been revealed that the relationship between GR & ESP $\beta = 0.581$, t -value = 16.021, p -value <0.05, and the relationship between GR & PI $\beta = 0.578$, t -value = 17.360, p -value <0.05, which implies that guilt and regret strongly impact the escapism and intentions to buy green products (see Figure 2).

5.4 | Mediation effects of PS and CV

To appraise the relationship between emotional dissonance and outcome as escapism and purchase intentions, the present paper conceptualised guilt and regret as the mediators in the study. It has been found that both have scant outcomes owing to the direct relationship between ED & ESP and ED & PI. As revealed in Table 7, ED has a positive and significant relationship with ESP which infers that consumers tend to avoid the situation to marginalise their emotional turmoil rather than reconciling the situation by intending to buy the green products as the relationship between ED & PI is insignificant. The presence of guilt & regret in ED & ESP resulted in a partial mediation

which implies that GR significantly influences the relationship between ED & ESP. It is quite possible when consumers sense discomfort owing to the influx of environmental disasters and climate change as the undisputed reality, they attempt to escape the situation to neutralise their emotional discomobulation. However, in the case of ED & PI, GR acts as a full mediation which infers that consumers intend to buy green products when they experience guilt and regret towards environmental issues as a result of human interference.

5.5 | Multi-group analysis

To compare the Italian and Indian consumers (H9), we used the MGA model (Table 8). To ensure the performance of MGA, we conducted a measurement of invariance via MICOM. As per Henseler et al. (2016), the process includes three hierarchically interrelated steps. In step I, configural invariance ensures that all the latent variables are equally specified in the groups assigned. In our case, the result is true, allowing us to go to step II of compositional invariance. It involves assessing the composite scoring across the groups, and it is supposed to be the same in all groups irrespective of specific weight differences. In the present study, permutation testing $p > 0.05$ infers that compositional invariance has been established as p -values for EA = 0.096; ED = 0.052; ESP = 0.084, GR = 0.053, PI = 0.436. Step III seeks the equality of composites' mean values and variance in the group

TABLE 7 Mediation effect of guilt & regret.

Path	Total effects and indirect effects				Effects
	Total effects		Indirect effects		
	(β)	<i>p</i>	(β)	<i>p</i>	
ED -> GR -> ESP	0.416	0.000	0.280	0.000	Partial mediation
ED -> GR -> PI	0.286	0.000	0.279	0.000	Full mediation

TABLE 8 Multi-group analysis.

Hypothesis	Variables	Path Coef.-diff (Italy) - (India)	t-value	Parametric test	PLS-MGA	Welch-Satterthwait test	Support
H1	EA -> ED	0.094	1.505	0.133	0.129	0.127	NO
H2	ED -> ESP	0.083	0.857	0.392	0.369	0.370	NO
H3	ED -> PI	0.217	3.208	0.001	0.002	0.002	YES
H4	ED -> GR	0.224	2.975	0.003	0.001	0.002	YES
H5	GR -> ESP	0.055	0.779	0.436	0.416	0.418	NO
H6	GR -> PI	-0.154	2.403	0.017	0.016	0.018	YES

assigned and both conditions are checked. If both conditions are established, then there is full invariance and if one condition is established then there is partial variance. Results revealed full invariance for EA, ESP, and PI and partial variance for ED and GR.

To assess the MGA, Sarstedt et al. (2017) recommended Henseler's MGA test, parametric test and Welch-Satterthwait approach. Henseler's MGA test involves a non-parametric method to assess the path coefficients of the model whereas in a parametric test, the observed difference between the groups is compared with other randomly based groups. Finally, the Welch-Satterthwait approach examines the standard errors in the sample. It is worth examining the relationship of EA, ED, GR, ESP, and PI on Indian and Italian consumers separately (see Table 8).

As it has been mentioned that EA significantly influences the ED, Table 8 shows that the relationship between Italian and Indian consumers is the same. Similarly, ED positively impacts the ESP, and there is no difference between Italian and Indian consumers. Notably, Italian consumers experience more guilt and regret when emotionally distressed due to the current environmental situation than Indian consumers as p -value <0.05. Similarly, Italian consumers largely show intention to buy green products as compared to Indian consumers as p -value <0.05. However, in the case of Indian consumers, intentions to purchase green products are higher when they perceive guilt and regret than Italian consumers. It is noteworthy that consumers of Italy and India attempt to escape the situation when they observe guilt or regret regarding human intrusion as a cause of natural disasters. Accordingly, H9 is supported because the model behaves differently for Indian and Italian consumers.

6 | DISCUSSION

Scantly, previous studies investigate the impact of eco-anxiety on consumers' emotional experiences. The present study demonstrates

the influence of eco-anxiety on the emotional voyage of consumers and extends its impact by understanding consequences via escapism or intentions to buy green. Tacitly, the literature has discoursed anxiety, stress, and its consequences (Coffey et al., 2021) and, presently, researchers have examined the adverse influence of eco-anxiety on psychological well-being (Stanley et al., 2021). Therefore, the present study investigates the direct impact of EA and ED on ESP and PI and indirectly explores the role of GR to proffer a novel research framework to contribute to sustainable development. Furthermore, for a comprehensive understanding, the present study employed a multi-group analysis among Indian and Italian consumers, which makes the study exclusive.

Inspired by the PMT and the CDT, this study investigates the psychological experiences of consumers and the changes in their behaviour owing to coping with environmental situations. It has been revealed that eco-anxiety positively influences emotional dissonance, which implies that environmental change has wreaked onerous emotional damage on individuals as they discern stress, fear, uneasiness, resentment, or agonisation. Similarly, many past studies discoursed that current environmental situation like climate change, global warming, and ocean acidification has heavily tolled the well-being of humans (Hogg et al., 2021; Ojala et al., 2021; Stanley et al., 2021). Frequent adverse record-breaking news related to environmental change is causing undesirable consequences in daily life.

Interestingly, the impact of eco-anxiety on emotional dissonance is the same in both countries. This result resonates with (Pihkala, 2020) and infers that environmental situation-related anxiety emotionally tolls both Indian (Sharma & Paço, 2021) and Italian consumers (Thomas & Gosink, 2021). As propounded in the CDT that individuals' plight can be resolved by change action or change cognition (Festinger, 1962), the present study examined change action via purchase intentions of green products in an attempt to solve environmental issues and change cognition via escapism as an attempt to avoid the situation. In addition, PMT explains the decision-making mechanism in stressful situations (Ioannou et al., 2021; Shafiei &



Maleksaeidi, 2020). As discussed, present environmental disaster begets dissonance and PMT acts as a guiding source to protect individuals via escapism as threat appraisal and through buying intentions as a coping mechanism.

Notably, escapism is positively significant with ED and intentions to buy green products were found to be insignificant. This result does not resonate with Johnson et al. (2021), who highlighted that opinion, usually cognitive dissonance negatively affects purchase intention. Thus, it is safe to infer that cognitive change and threat appraisal influence individuals' decisions by avoiding thinking of environmental issues and attempting to marginalise their emotional distress. Avoiding can be a convenient course of action for individuals to repress the anxiety and threat of the current environmental situation (Sharma & Lal, 2020; Sharma & Paço, 2021). Cogently, past studies have highlighted the importance of guilt and regret in expounding the decision-making proceeding of individuals (Mukherjee & Chandra, 2022). Homogenously, the present study also understands the importance of GR in emotional discomfort as ED was found to influence GR significantly (Kazancoglu et al., 2021). It implies that cognitive discomfort affects the emotion of guilt and regret towards the environment, as the acquisitiveness of humans majorly causes the current environmental crisis. Interestingly, when we examined the role of GR, it was revealed that GR acts as a partial mediator when examined with ED and ESP and full mediation when tested on ED and PI. It demonstrates that in the case of self-reproach and remorsefulness individual tends to avoid the situation, as also mentioned in past studies (Sharma & Lal, 2020; Sharma & Paço, 2021). In the case of a positive course of action, individuals attempt to buy green products when they are in emotional turmoil and backed up by guilt and regret (de Lima et al., 2019). Intentions to buy green products need more incitement and a catalyst approach (Sharma, Paço, & Kautish, 2022).

When collating the results from Indian and Italian consumers, it was found that ED positively affects the ESP. It infers that consumers of India and Italy tend to avoid contemplating environmental crises to normalise their plight. However, the case of GR and PI was different, as it has been revealed that Italians have more self-condemnation than Indian consumers (Cervellon & Shammas, 2013). In addition, Italian consumers attempt to offset emotional discomfort by thinking about buying green products, which is inconsistent with Indian consumers (Sharma, Paço, & Kautish, 2022). Howbeit, in the presence of guilt and feeling bad for environmental conditions, Indian consumers show more intentions to buy green than Italian consumers. It is supported by past studies that anticipated guilt and embarrassment promote environmentalism among Indian consumers (Mukherjee & Chandra, 2022; Sreen et al., 2020). Besides, this result, related to Indian customers, resonates with the findings achieved by de Lima et al. (2019), which indicate that guilt is a significant factor with the potential to encourage green product purchase intention.

7 | IMPLICATIONS

Management and academics are trying to determine whether consumers are more anxious due to critical ecological conditions and to

what extent they are ready to alter their buying patterns (Sharma, Paço, et al., 2022; Verplanken et al., 2020). This calls for rigorous studies to understand how the concept of eco-anxiety is felt among consumers.

Past research showed that the intention to buy eco-friendly products entails a positive attitude and morality (Sharma, Lal, et al., 2022). As a result of ESP, customers avoid facing serious environmental circumstances (Darrat et al., 2016; Yi, 2021) to attain self-exoneration. Also, to overcome the EA, ED, guilt and regret associated with environmental issues, consumers can change their purchasing behaviour or deny the ethical issues at hand. Thus, this study contributes to the body of knowledge on eco-anxiety. The issue is investigated among Italian and Indian consumers who are conscious of the consequences of current environmental complications and are experiencing emotional dissonance, as well as how or to what extent it affects customers, keeping in mind that individuals may tend to avoid stress caused by environmental issues. To the best of the authors' knowledge, no previous papers have investigated eco-anxiety, emotional dissonance, guilt and regret, escapism, and purchasing behaviour in contemporary India and Italy.

This paper offers significant insights for marketers as to what fosters green PI or how consumers exonerate themselves from green buying and prefer ESP.

In terms of strategies and tactics, practitioners must cater to the preferences and needs of consumers when creating eco-friendly products. Thus, the current research shows that purchase intentions to buy green products and willingness to escape from reality differ between Italy and India. As highlighted before by Pihkala (2020), EA significantly influences ED in both countries.

Likewise, ED positively impacts ESP and there is no difference between Italian and Indian customers. This means that in both geographical areas, individuals are aware of the ecological situation and that it can cause anxiety and negative emotions linked to current and past damages that humans have done to the ecosystem. Hence, policymakers should come up with strong policies like India started with 'SWATCH BHARAT Abhiyan', 'Clean India & Green India'. In Italy government started LEED (Leadership in Energy and Environmental Design), a project that seeks to influence market changes by demonstrating the value of choices that promote energy efficiency and enhance sustainability (Dall'O' et al., 2013).

It is noteworthy that in Italy, consumers feel more guilty and regretful about environmental crises when they are emotionally distressed as compared to Indian consumers. It infers that Italians are more informative regarding the current environmental crisis and experience remorsefulness accordingly (Dangelico et al., 2021; Mathur, 2009) as compared to Indian consumers. In developed countries, not only are the media interested in adding environmental matters to their daily agenda but also, the policymakers are spending great effort in being in line with global standards and regulations (Silander, 2020). Contrarily, in developing countries like India, managers of sustainable organisations have to consider that they should, in partnership with the media, develop reliable coverage of global warming, leverage trustworthy sources, and boost the public opinion's

engagement among a mainly unaware population if they want consumers to be more prone to buy green products (Thaker et al., 2017). According to other research, the partnership between eco-friendly companies and media can also show Indian policymakers that the audience is willing to pay more attention to these trends and that it is about time to create a sustainable *status quo* so that people, profit, and the planet could thrive harmoniously together (Chaturvedi et al., 2019). It is quite possible that media can influence the course of action of individuals concerning the current environmental situation.

In line with several past studies (Mathew & Taylor, 2018; Swaidan, 2012), the paper contributes to the stream of research on guilt and regret, as it highlights that they influence Indian customers as a result of the high-power distance embedded in the Indian society which is affected by paternalistic aspects. Oriented towards hierarchical values, these tendencies are enmeshed in traditions, common-sense practices, and routines, such as buying routines. This acute verticalism manifests itself in certain behaviours, such as compliance and an unwillingness to admit responsibility, which makes Indian residents reluctant to face issues and prefer to wait for 'others' (with a higher position in society) to resolve critical issues, such as environmental concerns (Winterich & Zhang, 2014). Therefore, our paper suggests that Indian practitioners should use the guilt appeal in sustainability messages to be persuasive, engaging their audience emotionally and ethically, and encouraging them to purchase green products. In addition, policymakers can also make Indian individuals more aware of their strengths concerning fighting against climate change, reducing pollution, fostering recycling habits, and buying sustainable products. Nevertheless, the current research indicates that feelings of guilt and regret do not help attract Italian consumers to eco-friendly products. In this geographical area, managers can try to raise the level of engagement of clients by applying different strategies: not only informing them about the positive environmental effects of purchasing green products but also involving and collaborating with them to co-create new sustainable goods (Friedman & Miles, 2006). Finally, marketers' use of guilt to structure communication content should consider different concurrent causes and not be focused only on human intervention as a principal reason for natural disasters. As the study has shown, this kind of message can result in customers in Italy and India attempting to escape from the situation when they feel guilt or regret.

Furthermore, policymakers in both countries should stop giving out information that associates guilt, regret, and human intrusion with environmental issues, as it implies that rather than changing their behaviour, individuals prefer to turn to escapism to avoid critical circumstances (Sharma, Paço, et al., 2022). In India, sustainable business managers should lobby to align policymakers' agendas with their own: only this strategy will allow them to foster green buying behaviours among customers (Jolly et al., 2016). While, in Italy, managers and policymakers are already working together to provide alternative eco-friendly conduct to customers. Consumers are now ready to be at the forefront and lead in green co-creating activities (Hofstad et al., 2023).

8 | CONCLUSION

This study shed light on this area by establishing what feelings lead to the intention to purchase green products or escapism. It focuses on how consumers deal with eco-anxiety, emotional dissonance, guilt and regret concerning environmental crises and how these emotions can affect their intention to buy sustainable products. Considering the results, Italian customers are more inclined to buy green products than Indian customers. Nevertheless, in comparison with Italian consumers, Indian interviewees' intention to purchase eco-friendly goods is higher when they feel guilty and regretful.

9 | LIMITATIONS AND FUTURE RESEARCH

The research, despite its valuable implications, is not without its limitations. It is worth noting that the research exclusively employed quantitative analysis, limiting the depth of information available, which could have been enhanced through the integration of qualitative methods. Therefore, future researchers are encouraged to adopt a mixed research approach. Subsequent investigations on this topic might consider including more variables related to consumer eco-anxiety, emotional dissonance, guilt, and regret, contributing to a more comprehensive exploration of the subject. Expanding the sample size using alternative sampling techniques is another avenue for future exploration.

The primary objective of the current study was to assess the existing relationship among consumer eco-anxiety, emotional dissonance, guilt, and regret. The focus was on understanding the role of eco-anxiety and its potential impact on enhancing green buying intentions. With this foundation, recommendations are provided for extending the current scope of research in examining the role of eco-anxiety. The study utilised a quantitative method approach, involving questionnaires, to gauge the significance of eco-anxiety, with a geographical emphasis on Italy and India. Future research could apply the same variables in different countries or contexts to explore brand preferences from diverse perspectives. Additionally, researchers have the option to modify the existing conceptual framework, potentially introducing new variables or expanding statement items to more comprehensively measure brand preference.

Furthermore, it was used as a convenience sample. Although there is no representativeness of the Indian and Italian populations, it is acceptable due to the exploratory nature of this study. Therefore, future research should use random probabilistic samples. Likewise, this study can be extended to other countries, for example, by comparing Italian countries. Additionally, the following research should investigate the role of religion and other factors (e.g., educational level and generation) in consumer guilt and regret. Furthermore, specific brands or products could be addressed in a future agenda to enhance understanding of consumer eco-anxiety, emotional dissonance, guilt, and regret.



ACKNOWLEDGEMENTS

This research is financed by national funds through FCT – Foundation for Science and Technology under the project UIDB/04630/2020.

ORCID

Nitika Sharma <https://orcid.org/0000-0003-0559-8753>

Arminda Paço <https://orcid.org/0000-0002-2806-4247>

Raysa Geaquinto Rocha <https://orcid.org/0000-0002-6542-1397>

Maria Palazzo <https://orcid.org/0000-0002-8710-9054>

REFERENCES

- Ágoston, C., Csaba, B., Nagy, B., Kóváry, Z., Dúll, A., Rácz, J., & Demetrovics, Z. (2022). Identifying types of eco-anxiety, eco-guilt, eco-grief, and eco-coping in a climate-sensitive population: A qualitative study. *International Journal of Environmental Research and Public Health*, 19(4), 2461. <https://doi.org/10.3390/ijerph19042461>
- Attiq, S., Chau, K. Y., Bashir, S., Habib, M. D., Azam, R. I., & Wongof, W. (2021). Sustainability of household food waste reduction: A fresh insight on youth's emotional and cognitive behaviors'. *International Journal of Environmental Research and Public Health*, 18(13), 7013. <https://doi.org/10.3390/ijerph18137013>
- Bell, G. D. (1967). The automobile buyer after purchase. *Journal of Marketing*, 31(3), 12–16. <https://doi.org/10.2307/1249023>
- Brewer, P., & Venaik, S. (2011). Individualism–Collectivism in Hofstede and GLOBE. *Journal of International Business Studies*, 42(1), 436–445. <https://doi.org/10.1057/jibs.2010.62>
- Brewis, J. (2014). The ethics of researching friends: On convenience sampling in qualitative management and organization studies. *British Journal of Management*, 25(4), 849–862. <https://doi.org/10.1111/1467-8551.12064>
- Buchanan, J., Summerville, A., Lehmann, J., & Reb, J. (2016). The regret elements scale: Distinguishing the affective and cognitive components of regret. *Judgment and Decision Making*, 11(3), 275–286. <https://doi.org/10.1037/t79726-000>
- Cervellon, M. C., & Shammas, L. (2013). The value of sustainable luxury in mature markets: A customer-based approach. *Journal of Corporate Citizenship*, 52, 90–101. <https://doi.org/10.9774/gleaf.4700.2013.de.00009>
- Chaturvedi, S., James, T. C., Saha, S., & Shaw, P. (2019). *2030 agenda and India: Moving from quantity to quality*. Springer. <https://doi.org/10.1007/978-981-32-9091-4>
- Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., & Usher, K. (2021). Understanding eco-anxiety: A systematic scoping review of current literature and identified knowledge gaps. *The Journal of Climate Change and Health*, 3, 100047. <https://doi.org/10.1016/j.joclim.2021.100047>
- Costa, C. S. R., Costa, M. F., Maciel, R. G., Aguiar, E. C., & Wanderley, L. O. (2021). Consumer antecedents towards green product purchase intentions. *Journal of Cleaner Production*, 313, 127964. <https://doi.org/10.1016/j.jclepro.2021.127964>
- Cova, B., Carù, A., & Cayla, J. (2018). Re-conceptualizing escape in consumer research. *Qualitative Market Research: An International Journal*, 21(2), 445–464. <https://doi.org/10.1108/QMR-01-2017-0030>
- Dall'O, G., Galante, A., Sanna, N., & Miller, K. (2013). On the integration of leadership in energy and environmental design (LEED)[®] ND protocol with the energy planning and management tools in Italy: Strengths and weaknesses. *Energies*, 6(11), 5990–6015. <https://doi.org/10.3390/en6115990>
- Dangelico, R. M., Nonino, F., & Pompei, A. (2021). Which are the determinants of green purchase behaviour? A study of Italian consumers. *Business Strategy and the Environment*, 30(5), 2600–2620. <https://doi.org/10.1002/bse.2766>
- Darrat, A. A., Darrat, M. A., & Amyx, D. (2016). How impulse buying influences compulsive buying: The central role of consumer anxiety and escapism. *Journal of Retailing and Consumer Services*, 31, 103–108. <https://doi.org/10.1016/j.jretconser.2016.03.009>
- Daryanto, A., Song, Z., & Soopramanien, D. (2022). The COVID-19 pandemic as an impetus for pro-environmental behaviours: The role of causal attribution. *Personality and Individual Differences*, 187, 111415. <https://doi.org/10.1016/j.paid.2021.111415>
- de Lima, E. B., Costa, C. S. R., & Felix, G. R. (2019). Guilt and pride emotions and their influence on the intention of purchasing green products. *CBR-Consumer Behavior Review*, 3(2), 70–84. <https://doi.org/10.51359/2526-7884.2019.240028>
- Dedeoğlu, A. Ö., & Kazançoğlu, İ. (2010). The feelings of consumer guilt: A phenomenological exploration. *Journal of Business Economics and Management*, 11(3), 462–482. <https://doi.org/10.3846/jbem.2010.23>
- Emekci, S. (2019). Green consumption behaviours of consumers within the scope of TPB. *Journal of Consumer Marketing*, 36(3), 410–417. <https://doi.org/10.1108/jcm-05-2018-2694>
- European Commission (EC). (2011). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Youth Opportunities Initiative. (Accessed May 2022). <http://www.un-documents.net/wcedocf.htm>
- Festinger, L. (1957). *A theory of cognitive dissonance* (Vol. 2). Stanford University Press. <https://doi.org/10.1515/9781503620766>
- Festinger, L. (1962). Cognitive dissonance. *Scientific American*, 207(4), 93–106. <https://doi.org/10.1038/scientificamerican1062-93>
- Friedman, A. L., & Miles, S. (2006). *Stakeholders: Theory and practice* (Vol. 10, pp. 227–228). Oxford University Press. <https://doi.org/10.1007/s10677-006-9043-5>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/eb-11-2018-0203>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International Marketing Review*, 33(3), 405–431. <https://doi.org/10.1108/imr-09-2014-0304>
- Hidalgo-Baz, M., Martos-Partal, M., & González-Benito, Ó. (2017). Attitudes vs. purchase behaviours as experienced dissonance: The roles of knowledge and consumer orientations in organic market. *Frontiers in Psychology*, 8, 1–8. <https://doi.org/10.3389/fpsyg.2017.00248>
- Hofstad, H., Sørensen, E., Torfing, J., & Vedel, T. (2023). Leading co-creation for the green shift. *Public Money & Management*, 43(4), 357–366. <https://doi.org/10.1080/09540962.2021.1992120>
- Hogg, T. L., Stanley, S. K., O'Brien, L. V., Wilson, M. S., & Watsford, C. R. (2021). The Hogg eco-anxiety scale: Development and validation of a multidimensional scale. *Global Environmental Change*, 71, 102391. <https://doi.org/10.1016/j.gloenvcha.2021.102391>
- Hurst, K. F., & Sintov, N. D. (2022). Guilt consistently motivates pro-environmental outcomes while pride depends on context. *Journal of Environmental Psychology*, 80, 101776. <https://doi.org/10.1016/j.jenvp.2022.101776>
- Ioannou, A., Tussyadiah, I., & Marshan, A. (2021). Dispositional mindfulness as an antecedent of privacy concerns: A protection motivation theory perspective. *Psychology & Marketing*, 38(10), 1766–1778. <https://doi.org/10.1002/mar.21529>
- Ishaq, M. I., Sarwar, H., & Ahmed, R. (2021). “A healthy outside starts from the inside”: A matter of sustainable consumption behavior in Italy and Pakistan. *Business Ethics, the Environment & Responsibility*, 30, 61–86. <https://doi.org/10.1111/beer.12333>
- Jafari, A., & Maclaran, P. (2013). Escaping into the world of make-up routines in Iran. *The Sociological Review*, 62(2), 359–382. <https://doi.org/10.1111/1467-954x.12112>
- Jaiswal, D., & Singh, B. (2018). Toward sustainable consumption: Investigating the determinants of green buying behaviour of Indian

- consumers. *Business Strategy & Development*, 1(1), 64–73. <https://doi.org/10.1002/bsd2.12>
- Jancar-Webster, B. (2019). Environmental degradation and regional instability in central Europe. In *Environmental security and quality after communism* (pp. 43–68). Routledge. <https://doi.org/10.4324/9780429034534-4>
- Janzs, J., & Timmers, M. (2002). Emotional dissonance. *Theory & Psychology*, 12(1), 79–95. <https://doi.org/10.1177/0959354302121005>
- Johnson, O., Seifert, C., & Lee, A. (2021). Shopping without the fuss: The effect of curation type in clothing subscription adoption on cognitive dissonance and consumer responses. *International Journal of Retail & Distribution Management*, 49(10), 1411–1429. <https://doi.org/10.1108/ijrdm-07-2020-0282>
- Jolly, S., Spodniak, P., & Raven, R. P. J. M. (2016). Institutional entrepreneurship in transforming energy systems towards sustainability: Wind energy in Finland and India. *Energy Research & Social Science*, 17, 102–118. <https://doi.org/10.1016/j.erss.2016.04.002>
- Kazancoglu, İ., Aydin, H., & Mishra, A. (2021). The effect of guilt on post-purchase regret: Attitudes and repurchase intentions towards smoking. *Ege Akademik Bakis (Ege Academic Review)*, 21(1), 59–79. <https://doi.org/10.21121/eab.874032>
- Kim, S., Jeong, S. H., & Hwang, Y. (2013). Predictors of pro-environmental behaviours of American and Korean students: The application the theory of reasoned action and protection motivation theory. *Science Communication*, 35(2), 168–188. <https://doi.org/10.1177/1075547012441692>
- Kock, N. (2017). Common method bias: A full collinearity assessment method for PLS-SEM. In Latan H. & Noonan R. (Eds), *Partial least squares path modeling*. (pp. 245–257). Springer, Cham. https://doi.org/10.1007/978-3-319-64069-3_11
- Kothe, E. J., Ling, M., North, M., Klas, A., Mullan, B. A., & Novoradovskaya, L. (2019). Protection motivation theory and pro-environmental behaviour: A systematic mapping review. *Australian Journal of Psychology*, 71(4), 411–432. <https://doi.org/10.1111/ajpy.12271>
- Kugler, K., & Jones, W. H. (1992). On conceptualizing and assessing guilt. *Journal of Personality and Social Psychology*, 62(2), 318–327. <https://doi.org/10.1037/0022-3514.62.2.318>
- Kurth, C., & Pihkala, P. (2022). Eco-anxiety: What it is and why it matters. *Frontiers in Psychology*, 13, 981814. <https://doi.org/10.3389/fpsyg.2022.981814>
- Landers, R. N., & Behrend, T. S. (2015). An inconvenient truth: Arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology*, 8(2), 142–164. <https://doi.org/10.1017/iop.2015.13>
- Lanzini, P., Testa, F., & Iraldo, F. (2016). Factors affecting drivers' willingness to pay for biofuels: The case of Italy. *Journal of Cleaner Production*, 112, 2684–2692. <https://doi.org/10.1016/j.jclepro.2015.10.080>
- Li, W., & de Oliveira, J. A. P. (2021). Environmental governance for sustainable development in Asia. *Journal of Environmental Management*, 290, 112622. <https://doi.org/10.1016/j.jenvman.2021.112622>
- Lukman, R. K., Glavič, P., Carpenter, A., & Vrtič, P. (2016). Sustainable consumption and production—Research, experience, and development—The Europe we want. *Journal of Cleaner Production*, 138, 139–147. <https://doi.org/10.1016/j.jclepro.2016.08.049>
- Mathew, S., & Taylor, G. (2018). Power distance in India: Paternalism, religion and caste: Some issues surrounding the implementation of lean production techniques. *Cross Cultural & Strategic Management*, 26(1), 2–23. <https://doi.org/10.1108/ccsm-02-2018-0035>
- Mathur, P. (2009). Environmental communication in the information society: The blueprint from Europe. *The Information Society*, 25(2), 119–138. <https://doi.org/10.1080/01972240802701676>
- Mills, P., & Groening, C. (2021). The role of social acceptability and guilt in unethical consumer behavior: Following the crowd or their own moral compass? *Journal of Business Research*, 136, 377–388. <https://doi.org/10.1016/j.jbusres.2021.07.021>
- Mukherjee, B., & Chandra, B. (2022). Unravelling the differential effects of pride and guilt along with values on green intention through environmental concern and attitude. *Kybernetes*, 51(7), 2273–2304. <https://doi.org/10.1108/K-04-2021-0336>
- Odou, P., & Schill, M. (2020). How anticipated emotions shape behavioral intentions to fight climate change. *Journal of Business Research*, 121, 243–253. <https://doi.org/10.1016/j.jbusres.2020.08.047>
- Ojala, M., Cunsolo, A., Ogunbode, C. A., & Middleton, J. (2021). Anxiety, worry, and grief in a time of environmental and climate crisis: A narrative review. *Annual Review of Environment and Resources*, 46, 35–58. <https://doi.org/10.1146/annurev-environ-012220-022716>
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. McGraw-Hill Book Company. <https://doi.org/10.4324/9781315700892>
- Orhan, A., Adebayo, T. S., Genç, S. Y., & Kirikkaleli, D. (2021). Investigating the linkage between economic growth and environmental sustainability in India: Do agriculture and trade openness matter? *Sustainability*, 13(9), 4753. <https://doi.org/10.3390/su13094753>
- Palazzo, M. (Ed.). (2019). *Linking cultural dimensions and CSR communication: Emerging research and opportunities*. IGI Global. <https://doi.org/10.4018/978-1-5225-7946-5>
- Pang, S. M., Tan, B. C., & Lau, T. C. (2021). Antecedents of consumers' purchase intention towards organic food: Integration of theory of planned behaviour and protection motivation theory. *Sustainability*, 13(9), 5218. <https://doi.org/10.3390/su13095218>
- Pihkala, P. (2020). Eco-anxiety and environmental education. *Sustainability*, 12(23), 10149. <https://doi.org/10.3390/su122310149>
- Prentice-Dunn, S., & Rogers, R. W. (2001). Protection motivation theory and preventive health: Beyond the health belief model. *Health Education Research*, 1(3), 153–161. <https://doi.org/10.1093/her/1.3.153>
- Rezaee, Z., Tsui, J., Cheng, P., & Zhou, G. (2019). *Business sustainability in Asia: Compliance, performance, and integrated reporting and assurance*. John Wiley & Sons. <https://doi.org/10.1002/9781119502302>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal Psychology*, 91(1), 93–114. <https://doi.org/10.1080/00223980.1975.9915803>
- Roulin, N. (2015). Don't throw the baby out with the bathwater: Comparing data quality of crowdsourcing, online panels, and student samples. *Industrial and Organizational Psychology*, 8(2), 190–196. <https://doi.org/10.1017/iop.2015.24>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. In Homburg, C., Klarmann, M., Vomberg, A. (Eds.), *Handbook of market research* (Vol. 26, pp. 1–40). Springer, Cham. https://doi.org/10.1007/978-3-319-05542-8_15-1
- Sattler, D. N., Kaiser, C. F., & Hitter, J. B. (2000). Disaster preparedness: Relationships among prior experience, personal characteristics, and distress. *Journal of Applied Social Psychology*, 30, 1396–1420. <https://doi.org/10.1111/j.1559-1816.2000.tb02527.x>
- Schneider, C. R., Zaval, L., Weber, E. U., & Markowitz, E. M. (2017). The influence of anticipated pride and guilt on pro-environmental decision making. *PLoS One*, 12(11), 1–14. <https://doi.org/10.1371/journal.pone.0188781>
- Scott, R., Cayla, J., & Cova, B. (2017). Selling pain to the saturated self. *Journal of Consumer Research*, 44(1), 22–43. <https://doi.org/10.1371/journal.pone.0188781>
- Shafiei, A., & Maleksaeidi, H. (2020). Pro-environmental behavior of university students: Application of protection motivation theory. *Global Ecology and Conservation*, 22, e00908. <https://doi.org/10.1016/j.gecco.2020.e00908>
- Sharma, N., & Lal, M. (2020). Facades of morality: The role of moral disengagement in green buying behaviour. *Qualitative Market Research: An International Journal*, 23(2), 217–239. <https://doi.org/10.1108/qmr-03-2019-0030>



- Sharma, N., Lal, M., Goel, P., Sharma, A., & Rana, N. P. (2022). Being socially responsible: How green self-identity and locus of control impact green purchasing intentions? *Journal of Cleaner Production*, 357, 131895. <https://doi.org/10.1016/j.jclepro.2022.131895>
- Sharma, N., & Paço, A. (2021). Moral disengagement: A guilt free mechanism for non-green buying behaviour. *Journal of Cleaner Production*, 297, 126649. <https://doi.org/10.1016/j.jclepro.2021.126649>
- Sharma, N., Paço, A., & Kautish, P. (2022). The impact of eco-innovation on green buying behaviour: The moderating effect of emotional loyalty and generation. *Management of Environmental Quality: An International Journal*, 33(4), 1026–1045. <https://doi.org/10.1108/meq-11-2021-0267>
- Silander, D. (2020). The EU and agenda 2030. In *Implementing sustainable development goals in Europe*. Edward Elgar Publishing. <https://doi.org/10.4337/9781789909975.00005>
- Soutar, G. N., & Sweeney, J. C. (2003). Are there cognitive dissonance segments? *Australian Journal of Management*, 28(3), 227–249. <https://doi.org/10.1177/031289620302800301>
- Sreen, N., Yadav, R., Kumar, S., & Gleim, M. (2020). The impact of the institutional environment on green consumption in India. *Journal of Consumer Marketing*, 38(1), 47–57. <https://doi.org/10.1108/jcm-12-2019-3536>
- Stanley, S. K., Hogg, T. L., Leviston, Z., & Walker, I. (2021). From anger to action: Differential impacts of eco-anxiety, eco-depression, and eco-anger on climate action and wellbeing. *The Journal of Climate Change and Health*, 1, 100003. <https://doi.org/10.1016/j.joclim.2021.100003>
- Steenhaut, S., & Van Kenhove, P. (2006). The mediating role of anticipated guilt in consumers' ethical decision-making. *Journal of Business Ethics*, 69(3), 269–288. <https://doi.org/10.1007/s10551-006-9090-9>
- Sun, J. J., & Chang, Y. J. (2021). Associations of problematic binge-watching with depression, social interaction anxiety, and loneliness. *International Journal of Environmental Research and Public Health*, 18(3), 1168. <https://doi.org/10.3390/ijerph18031168>
- Swaidan, Z. (2012). Culture and consumer ethics. *Journal of Business Ethics*, 108(2), 201–213.
- Sweeney, J. C., Hausknecht, D., & Soutar, G. N. (2000). Measuring cognitive dissonance: A multidimensional scale. *Psychology and Marketing*, 17(5), 369–386. [https://doi.org/10.1002/\(sici\)1520-6793\(200005\)17:5<369::aid-mar1>3.0.co;2-g](https://doi.org/10.1002/(sici)1520-6793(200005)17:5<369::aid-mar1>3.0.co;2-g)
- Tamar, M., Wirawan, H., Arfah, T., & Putri, R. P. S. (2020). Predicting pro-environmental behaviours: The role of environmental values, attitudes and knowledge. *Management of Environmental Quality: An International Journal*, 32(2), 328–343. <https://doi.org/10.1108/MEQ-12-2019-0264>
- Tanner, J. F., Day, E., & Crask, M. R. (1989). Protection motivation theory an extension of fear appeals theory in communication. *Journal of Business Research*, 27(6), 267–276. [https://doi.org/10.1016/0148-2963\(89\)90008-8](https://doi.org/10.1016/0148-2963(89)90008-8)
- Thaker, J., Zhao, X., & Leiserowitz, A. (2017). Media use and public perceptions of global warming in India. *Environmental Communication*, 11(3), 353–369. <https://doi.org/10.1080/17524032.2016.1269824>
- Theotokis, A., & Manganari, E. (2014). The impact of choice architecture on sustainable consumer behaviour: The role of guilt. *Journal of Business Ethics*, 131(2), 423–437. <https://doi.org/10.1007/s10551-014-2287-4>
- Thøgersen, J. (2004). A cognitive dissonance interpretation of consistencies and inconsistencies in environmentally responsible behaviour. *Journal of Environmental Psychology*, 24(1), 93–103. [https://doi.org/10.1016/s0272-4944\(03\)00039-2](https://doi.org/10.1016/s0272-4944(03)00039-2)
- Thomas, C., & Gosink, E. (2021). At the intersection of eco-crises, eco-anxiety, and political turbulence: A primer on twenty-first century Ecofascism. *Perspectives on Global Development and Technology*, 20(1–2), 30–54. <https://doi.org/10.1163/15691497-12341581>
- Tracy, J. L., & Robins, R. W. (2007). The psychological structure of pride: A tale of two facets. *Journal of Personality and Social Psychology*, 92(3), 506–525. <https://doi.org/10.1037/0022-3514.92.3.506>
- Usher, K., Durkin, J., & Bhullar, N. (2019). Eco-anxiety: How thinking about climate change-related environmental decline is affecting our mental health. *International Journal of Mental Health Nursing*, 28(6), 1233–1234. <https://doi.org/10.1111/inm.12673>
- Verplanken, B., Marks, E., & Dobromir, A. I. (2020). On the nature of eco-anxiety: How constructive or unconstructive is habitual worry about global warming? *Journal of Environmental Psychology*, 72, 101528. <https://doi.org/10.1016/j.jenvp.2020.101528>
- Villanthenkodath, M. A., & Mahalik, M. K. (2022). Technological innovation and environmental quality nexus in India: Does inward remittance matter? *Journal of Public Affairs*, 22(1), e2291. <https://doi.org/10.1002/pa.2291>
- Vollero, A., Siano, A., Palazzo, M., & Amabile, S. (2020). Hoftside's cultural dimensions and corporate social responsibility in online communication: Are they independent constructs? *Corporate Social Responsibility and Environmental Management*, 27(1), 53–64. <https://doi.org/10.1002/csr.1773>
- Vollero, A., Yin, J., & Siano, A. (2022). Convergence or divergence? A comparative analysis of CSR communication by leading firms in Asia, Europe, and North America. *Public Relations Review*, 48(1), 102142. <https://doi.org/10.1016/j.pubrev.2021.102142>
- Winterich, K. P., & Zhang, Y. (2014). Accepting inequality deters responsibility: How power distance decreases charitable behavior. *Journal of Consumer Research*, 41(2), 274–293. <https://doi.org/10.1086/675927>
- Xu, H., Bègue, L., & Shankland, R. (2011). Guilt and guiltlessness: An integrative review. *Social and Personality Psychology Compass*, 5(7), 440–457. <https://doi.org/10.1111/j.1751-9004.2011.00364.x>
- Yi, S. (2021). Shame-proneness as a risk factor of compulsive buying. *Journal of Consumer Policy*, 35(3), 393–410. <https://doi.org/10.1007/s10603-012-9194-9>
- Yue, T., Zhang, L., Long, R., Chen, H., Gao, C., & Li, M. (2021). Will low-carbon purchasing behaviour make residents' behaviours greener? Research based on spillover effects. *Frontiers in Environmental Science*, 9(November), 8. <https://doi.org/10.3389/fenvs.2021.783486>
- Zeelenberg, M., & Pieters, R. (2007). A theory of regret regulation 1.0. *Journal of Consumer Psychology*, 17, 3–18. https://doi.org/10.1207/s15327663jcp1701_3
- Zhuang, W., Luo, X., & Riaz, M. U. (2021). On the factors influencing green purchase intention: A meta-analysis approach. *Frontiers in Psychology*, 12(April), 1–15. <https://doi.org/10.3389/fpsyg.2021.644020>

How to cite this article: Sharma, N., Paço, A., Rocha, R. G., Palazzo, M., & Siano, A. (2023). Examining a theoretical model of eco-anxiety on consumers' intentions towards green products. *Corporate Social Responsibility and Environmental Management*, 1–18. <https://doi.org/10.1002/csr.2670>



ANNEX I

Constructs	Items	References
Emotional dissonance	<ol style="list-style-type: none"> 1. I'm in despair 2. I resent it 3. I feel disappointed with myself 4. I feel scared 5. I feel hollow 6. I feel angry 7. I feel uneasy 8. I feel I'd let myself down 9. I feel annoyed 10. I feel frustrated 11. I'm in pain 12. I feel depressed 13. I feel furious with myself 14. I feel sick 15. I'm in agony 	Soutar, G. N., & Sweeney, J. C. (2003). Are there cognitive dissonance segments? <i>Australian Journal of Management</i> , 28(3), 227–249.
Eco-anxiety	<ol style="list-style-type: none"> 1. I feel nervous, anxious or on edge 2. I feel not being able to stop or control worrying 3. I worry too much 4. I feel afraid 5. I'm feel unable to stop thinking about future climate change and other global environmental problems 6. I feel unable to stop thinking about past events related to climate change 7. I feel unable to stop thinking about losses to the environment 8. I have difficulty sleeping 9. I have difficulty enjoying social situations with family and friends 10. I have difficulty working and/or studying 11. I feel anxious about the impact of your personal behaviours on the earth 12. I feel anxious about your personal responsibility to help address environmental problems 13. I feel anxious that your personal behaviours will do little to help fix the problem 	Hogg, T. L., Stanley, S. K., O'Brien, L. V., Wilson, M. S., & Watsford, C. R. (2021). The Hogg eco-anxiety scale: development and validation of a multidimensional scale. <i>Global Environmental Change</i> , 71, 102391.
Escapism	<ol style="list-style-type: none"> 1. I want to escape from current issues 2. I don't think about environmental problems temporarily 3. I avoid reading regrading environmental issues temporarily 	Darrat, A. A., Darrat, M. A., & Amyx, D. (2016). How impulse buying influences compulsive buying: The central role of consumer anxiety and escapism. <i>Journal of Retailing and Consumer Services</i> , 31, 103–108. [Modified items as per paper]
Guilt & regret	<ol style="list-style-type: none"> 1. I feel guilty if I don't buy green ethical products 2. I feel accountable about not helping to protect the environment 3. I feel regret 	Self-constructed
Eco-awareness	<ol style="list-style-type: none"> 1. I am aware about current environmental issues 	Moderator
Purchase intentions	<ol style="list-style-type: none"> 1. I will consider buying products because they are less polluting in coming times 	Emekci, S. (2019). Green consumption behaviours of

(Continues)



Constructs	Items	References
	<ol style="list-style-type: none"><li data-bbox="451 180 1005 233">2. I will consider switching to environmental friendly brands for ecological reasons<li data-bbox="451 258 1023 310">3. I plan to spend more on environmental friendly products rather than conventional products<li data-bbox="451 321 991 373">4. I expect to purchase products in the future because of their positive environmental contribution<li data-bbox="451 384 986 415">5. I definitely want to purchase green products in near future.	consumers within the scope of TPB. <i>Journal of Consumer Marketing</i> , 36(3), 410–417.