Examining the role of consumer hope in sustainable consumption behaviour

Sadiq, Mohd

Sadiq, Mohd (2025) Examining the role of consumer hope in sustainable consumption behaviour [PhD Thesis]. Australian Catholic University. DOI: https://doi.org/10.26199/acu.920vy

Examining the role of consumer hope in sustainable consumption behaviour

Mohd Sadiq

This thesis is submitted for the degree of

Doctor of Philosophy

Department of Marketing and Entrepreneurship

Peter Faber Business School

Australian Catholic University

-July 2025 -

Statement of Originality

I confirm that this thesis has not been submitted for a degree or diploma at any university or institution other than the Australian Catholic University. To the best of my knowledge, the thesis does not include any content that has been published or authored by someone else without proper citation within the thesis text. The research in this thesis was sanctioned by the Australian Catholic University Ethics Review Committee, with Ethics register number 2023-3220E, on August 7th, 2023.

Candidate's Name: Mohd Sadiq

Date: 07 July 2025

Acknowledgements

Above all, I want to express my heartfelt gratitude to God for giving me the strength and resilience to overcome challenges and celebrate achievements throughout my academic journey.

A few very special people have made this extraordinary journey much less complicated and more rewarding for me. Firstly, I consider myself fortunate to have had an amazing team of supervisors: Associate Professor Syed Muhammad Fazal-e-Hasan, Dr. Samantha Murdy, Associate Professor Hormoz Ahmadi, and Professor Susan Dann. They are not only great mentors but also kind individuals who have significantly contributed to the development of this research. Their research acumen, expertise, integrity, and relentless pursuit of quality have been invaluable throughout this journey.

I must personally thank Professor Syed for guiding me and enhancing my understanding of various research techniques, even before I joined the school as a PhD student. Whenever I struggled, he kept me motivated and provided invaluable suggestions for improving my academic writing, research methodology, and analytical techniques.

Dr. Samantha and Professor Hormoz deserve special thanks and appreciation for their exceptional support, particularly with the writing aspect of my research. Lastly, I must express my gratitude to Professor Susan for her consistent support throughout my PhD program. It has been a great pleasure to learn from all of you.

I am extremely grateful to the Australian Catholic University, Australia, for granting me the Australian Catholic University Stipend Scholarship to pursue this programme. Without this, pursuing this programme might have been a distant dream.

I would also like to express my heartfelt gratitude to my parents for their encouragement, affection, prayers, and support, which they have extended throughout every step of my life. Their natural love and affection, incredible persistence, phenomenal courage and simple belief that "*the end is more important no matter where the start is*" are the treasures they have worn with humility.

I want to express gratitude to my incredible and lovely wife, Samina Anis Ansari, for her unconditional support throughout my PhD journey. She provided much-needed cognitive and emotional support whenever I felt stuck during the PhD journey. This thesis is as much my wife's accomplishment as it is mine— her constant reminders that I needed sleep, food, and occasionally, fresh air fueled my energy. She was the only person who listened to my practice of mid-term and final year presentations more times than my actual committee did. She deserves a "PhD in Patience" for enduring my endless study sessions.

I extend my gratitude to my family member Dr Mohd. Adil, Dr Mohd. Tariq, Mr Mohd. Rashid, my lovely Master Ismaeel Muhammad Sadiq, Master Mohammad Haroon, baby Maryam Fatima and baby Hadiya Adil, for their unconditional love, emotional support and fine words, have gone a long way to finish this important task.

I also like to thank my friends, Ibne Ali, Abdulvahid Jamal, Muhammad Sakib and Mohammad Rahmati, for all the discussions regarding the research we had during this journey. I could spend several pages thanking all my colleagues, friends and others who directly or indirectly contributed to my work, not just with their comments or discussions but also my emotional and spiritual well-being over the last year.

At last, Many Thanks, everyone! Your support has been invaluable.

Contents

List of Tables

List of Figures

Acronyms Tables

Acronyms	Full Form
AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structures
CMIN	Chi-Square
CFI	comparative fit index
fsQCA	Fuzzy set Qualitative Comparative Analysis
GFI	Goodness of Fit Index
NFI	normed fit index
RMSEA	Root Mean Square Error of Approximation
SCB	Sustainable Consumption Behaviour
SEM	Structural Equation Modelling
SRMR	Standard Root Mean Square Residual
SLR	Systematic Literature Review
TCCM	Theory-Context-Characteristics-Method
TLI	Tucker–Lewis index

Abstract

Sustainable consumption is gaining importance as businesses and consumers are shifting their focus from conventional to eco-friendly products. While awareness is rising due to government initiatives and advertising, many consumers remain skeptical of sustainability claims, limiting their engagement with such products.

Most research on sustainable consumption focuses on cognitive factors like attitudes and values, with limited attention to emotions. Existing studies present a paradox—negative emotions like guilt are well-studied, while positive emotions, particularly hope, are underexplored. This study systematically reviews 123 research articles to examine how hope influences sustainable consumption behavior.

Based on the review, a research model is developed incorporating cognitive factors (green self-identity, perceived natural content, environmental knowledge, and perceived greenwashing) as drivers of consumer hope, which in turn leads to sustainable consumption. The study also explores how goal attainment moderates this relationship and compares consumer behavior at home versus while traveling.

Using structural equation modeling and Fuzzy-set Qualitative Comparative Analysis, the study analyzes data from 584 consumers (298 at home, 286 traveling). The findings support all hypotheses except the moderating role of environmental knowledge in the greenwashing-hope relationship. The study offers theoretical contributions and practical insights for marketers and policymakers to enhance transparent communication, environmental education, and strategies fostering hope for sustainable consumption.

Keywords: sustainable consumption behaviour; consumer hope; positive emotions; consumer goal attainment; green self-identity; perceived natural content; perceived greenwashing; environmental knowledge; SEM-fsQCA

Publications from the Thesis

1) Sadiq, M., Murdy, S., Fazal-e-Hasan, M. S., Ahmadi, H., & Dann, S. (*Under Review*). Role of emotions in sustainable consumption behaviour: A systematic review and future research agenda. *Business Strategy and The Environment* (ABDC= A).

2) Sadiq, M., Fazal-e-Hasan, M. S., Murdy, S., Ahmadi, H., & Dann, S. (*Under Review*). Consumer Hope and Sustainable Consumption: Integrating Structural and Configurational Insights. *Journal of Retailing and Consumer Services* (ABDC= A).

3) Sadiq, M., Fazal-e-Hasan, M. S., Murdy, S., Ahmadi, H., & Dann, S. (*To Be Submitted*). Unravelling sustainable consumption while travelling overseas and at home: A cross-contextual study. *Journal of Sustainable Tourism* (ABDC= A*).

Chapter 1: Introduction

The current chapter outlines the research background (section 1.1) and research gap (section 1.2) in the sustainable consumption behaviour (SCB) literature. The chapter also highlights this thesis's purpose, which is to investigate the role of hope (i.e., positive emotions) in SCB. Next, this chapter focuses on the research context (section 1.3) and the research questions (section 1.4) based on the gaps identified in the SCB domain. An overview of the methodology (section 1.5) and the contribution of this thesis (section 1.6) are discussed later in this chapter. The chapter's last section (i.e., 1.7) explains the thesis structure.

1.1 Research Background

The world was united in 2022 at the United Nations Climate Change Conference in Sharm El Sheikh, Egypt, to address the issues related to environmental sustainability (Atwoli et al., 2022). Leaders committed to working mutually toward the climate-water-food policy to save the future of the eight billion global population and counting by implementing sustainable actions, such as motivating consumers to shift toward green energies and creating awareness to reduce food waste worldwide (Greer et al., 2022). One example is the Australian Government motivating residents to adopt solar energy to generate electricity by offering a subsidy (Cassidy, 2022). Similarly, the Saudi Government is creating awareness through advertisements to reduce food waste (ARABNEWS, 2023). The challenges related to environmental sustainability have been longstanding. For instance, in 1992, the world was called to assemble at the UN conference in Rio de Janeiro, Brazil, to address issues related to environmental degradation; the idea of sustainable consumption got attention as it is an overarching phenomenon linking environmental sustainability to societal development.

Similarly, the UN proposed 17 sustainable development goals (SDG) for 2030 in the 2015 UN Summit (United Nations, 2023). One of the goals is responsible consumption and

production (SDG 12), focusing on changing consumers' current non-sustainable consumption behaviour to provide a healthy and clean environment (Mensah, Wieck & Rudloff, 2024). Conferences and conventions of this nature have served as catalysts, inspiring policymakers and environmentalists to raise awareness among consumers and manufacturers regarding environmental issues (Neugebauer et al., 2020). This awareness increases environmental consciousness, shifting focus from conventional to sustainable products (McNeill & Venter, 2019). Sustainable products refer to products that are manufactured using fewer resources and which have a minimal risk to the environment (Dangelico & Pontrandolfo, 2010).

Scholars such as Hamzah and Tanwir (2021) and Yadav and Pathak (2016) indicated that sustainable product manufacturers are inclined to disseminate information about their products' role in mitigating environmental deterioration. In addition, sustainable product manufacturers attract consumers through promotional tactics such as monetary incentives (Chen et al., 2019). Consequently, the gradual increase in sustainable product demand reflects a positive shift in consumers' knowledge, belief, and emotions toward sustainable products (Dhir, Talwar, et al., 2021; Wang & Wu, 2016). The rise in demand for sustainable products is also evident from the growing revenue generated by the retail sector. For example, according to a survey conducted in 2022, 65% of Australian consumers indicated that they prefer sustainable products (Statista, 2023a).

Similarly, Petruzzi (2022) projected that the worldwide sale of environmentally friendly packaging will cross USD$246 Billion in three years. However, given the increased demand for sustainable products, scholars still suggest that the sustainable product sector is in its embryo stage (Khare & Pandey, 2017). This initial stage of sustainable product consumption can be evident from Guyader et al. (2017), who claim that a sustainable product market has reached less than 10% of the global market value, and the consumption rate is still

less than expected. This implies that consumers prefer sustainable products, but their willingness to consume is not adequately translated into SCB.

Several studies employed the theory of planned behaviour to understand consumer perception conversion into SCB (Kumar et al., 2017; Paul et al., 2016). The theory of planned behaviour explains consumers' rational actions based on their attitude, perceived behavioural control, and subjective norms (Ajzen, 1991). Scholars such as Taufique and Vaithianathan (2018) argued that consumers' attitudes towards the environment, a component of the theory of planned behaviour, motivate them to consume sustainable products. However, researchers such as Cheung and To (2019) and Sharma et al. (2022) indicated that consumer attitudes may not be enough for SCB; therefore, they have called for an alternative psychological explanation for the low consumption of sustainable products. Similarly, Ajzen (1991) suggested that consumers' perceived control over their behaviour can predict consumption. Research indicates that perceptions of behavioural control lead to low consumption rates because of several factors, such as the high price of sustainable products (Hua & Dong, 2022; Sultan et al., 2020). Literature suggests other factors, including experiential emotions, that may impact SCB (Antonetti & Maklan, 2014a; Fazal-e-Hasan et al., 2025). Emotions are negative and positive and can impact sustainable product consumption (Grappi et al., 2024; Wang & Wu, 2016). Consumers often steer clear of sustainable products due to the emergence of negative emotions like anger and fear, which can trigger perceptions of greenwashing (Amatulli et al., 2019; ElHaffar et al., 2020; Liang et al., 2019). Further, research on sustainable consumption addresses the reason for the consumption of sustainable products, focusing on negative emotions such as guilt (Antonetti & Maklan, 2014b; Haj-Salem et al., 2022).

Kapoor et al. (2023) assert that marketers often foster negative emotions among consumers by conveying messages highlighting the adverse consequences of overconsumption, including environmental degradation. This strategy aims to shape consumers' perceptions of the situation

in a negative light, ultimately seeking to enhance SCB. However, other scholars such as Coleman et al. (2020), Hastings et al. (2004), and Schneider et al. (2017) argued that the influence of negative emotional appeals gradually fades with time in comparison to positive emotions due to negative perception of the situation. In addition, positive emotions are essential to consider because they motivate consumers to exhibit SCB by strengthening their perception of their action's effectiveness toward sustainable products (Antonetti & Maklan, 2014b), which can stay with them for a long time. Therefore, this study addresses the call of ElHaffar et al. (2020), Joshi and Rahman (2015), and Liang and Guo (2021) to identify suitable positive emotions that can contribute to our understanding of how cognitive factors impact sustainable consumption behaviour.

1.2 Research Gaps

The United Nations' 17 SDGs reflect multilevel initiatives to achieve sustainability by 2030 (United Nations, 2023). This initiative has become even more critical with recent climate changes, reflecting the need to mitigate the harm done to the environment (Kim, Bonn, & Hall, 2022). Of the available SDGs, goal number 12 (i.e. responsible consumption and production) specifically calls for changing the consumption and production pattern to achieve environmental sustainability (United Nations, 2023). SDG 12 received significant attention from consumer behaviour researchers (e.g. Kim & Hall, 2021; Kirmani et al., 2023; Sala & Castellani, 2019), wherein they studied factors leading to the consumption of sustainable products. Recent literature suggests that consumers' cognitive and behavioural mechanisms for consuming sustainable products are well-studied using different behavioural theories (Sharma et al., 2022). For example, the theory of planned behaviour (Hamzah & Tanwir, 2021), value-attitude-behaviour (Cheung & To, 2019), knowledge-attitude-behaviour (Taufique et al., 2017), and value-belief-norm theory (Ghazali et al., 2019; Sharma & Gupta, 2020), have been employed in helping researchers study the influence of cognitive and behavioural factors on

SCB. These cognitive and behavioural factors include attitude, perceived behavioural control, environmental and health concerns, knowledge, and values in predicting SCB (Sharma, 2021). Other studies focusing on emotions mainly highlighted the role of anticipated negative and positive emotions in SCB, overlooking the scope of experiential emotions such as hope (ElHaffar et al., 2020). Furthermore, despite emphasising the role of experiential emotions in consumer decision-making in different marketing contexts, such as online marketing (Pappas et al., 2014) and services marketing (Mazaheri et al., 2012), SCB literature has not investigated the role of positive emotions, such as hope, in explaining the association of cognitive factors with SCB at home and travelling. Scoping the SCB with the lens of consumption context is important for several reasons. Academicians are increasingly focusing on how SCB differs among consumers while at home and travelling (Ganglmair-Wooliscroft & Wooliscroft, 2017; Wu, Font, & Liu, 2021). Research suggests consumers exhibit a greater preference for sustainable products at home than when they travel (Ganglmair-Wooliscroft & Wooliscroft, 2017). According to Statista (2024), the rise in travelling frequency from 0.96 billion to 1.28 billion from 2022 to 2023 has also improved the likelihood of sustainable product consumption. However, the literature indicates that consumers' SCB drops while travelling (Alcock et al., 2017; Juvan & Dolnicar, 2014), suggesting that other factors (e.g., facilitators and inhibitors) are at play and need further investigation (Wu et al., 2021). Similarly, Juvan and Dolniar (2014) and Ramchurjee and Suresha (2015) identified that consumers who actively participated in pro-environmental activities at home are less likely to perform such behaviour at destinations because of low perceived benefits and high costs, which may develop negative emotions among them. Therefore, examining the psychological mechanisms that might facilitate or inhibit the adoption of SCB at home and while travelling is essential.

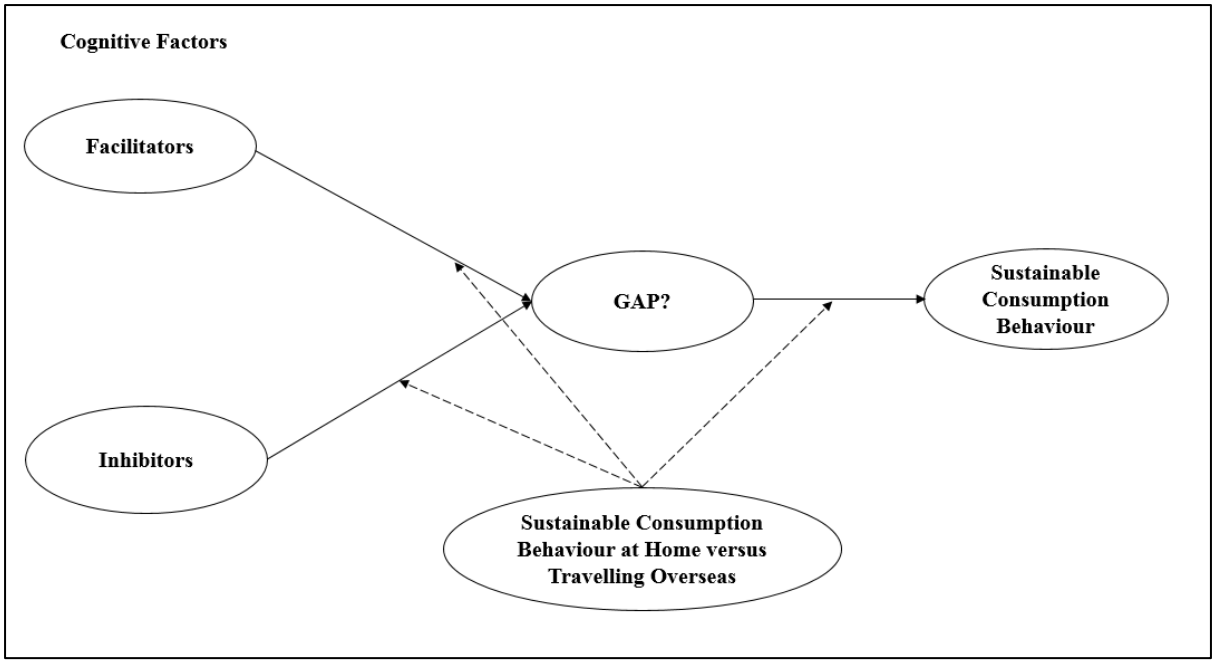


Figure 1.1: Proposing the mediator gap between cognitive factors (facilitators and inhibitors) and sustainable consumption behaviour

Figure 1.1 demonstrates the primary research gap, explaining the conversion mechanism of cognitive factors (facilitators and inhibitors) into SCB at home and travelling. Some studies have posited that consumers' expectations, optimism, self-efficacy, and desire explain the mechanism of adoption of desirable behaviour such as SCB (Dhir, Talwar, et al., 2021; Meng & Choi, 2016; Tawde, Kamath, & ShabbirHusain, 2023; Tseng & Hung, 2013). In these studies, expectations and desire posit as a will factor, while optimism and self-efficacy portray consumers' capabilities to reduce risk by consuming sustainable products (Dhir, Talwar et al., 2021; Song et al., 2012; Taufique & Vaithianathan, 2018; Tseng & Hung, 2013). Therefore, expectations, desire, optimism, and self-efficacy generate will and confidence among consumers to perform desirable behaviour (Ko, 2018), while the pathways required to achieve the set goals remain unclear. For three reasons, the current study argues that hope is a better alternative to expectations, optimism, self-efficacy, and desire to explain SCB. First, hope is a construct that elucidates the inclination of consumers to engage in product consumption and provides the means through which consumption can be realised (Tong et al.,

2010). Conversely, expectations and desire pertain exclusively to consumers' will and do not consider the way or means to consume sustainable products (Chirilli, Molino, & Tori, 2022; Han, Kim, et al., 2018), setting a narrower scope of influence on desirable behaviour. Second, hope is considered one of the best coping strategies in the psychology literature (Wang & Lei, 2021). Hence, consumers with a strong hope tend to perceive positive outcomes, enhancing their coping abilities and prompting them to engage in desirable behaviours such as SCB. Consequently, these consumers may think more expansively and actively pursue various actions and thoughts (Lee et al., 2017). Finally, consumers buy sustainable products to attain specific goals (Weisstein et al., 2017). For instance, they may purchase organic food to demonstrate their association with environmental causes, further relating their identity to a pro-environmental group of consumers (Talwar, Jabeen, et al., 2021). While expectations and desire are solely focused on the will, hope, as a future-oriented and goal-directed emotion, helps consumers to feel motivated (will) and choose the best action plan (way) to attain the goal associated with their consumption. Therefore, unlike expectations and desire, hope develops both will and a way to adopt a specific behaviour, such as SCB.

In light of the discussion above, this study conducts a systematic literature review (SLR) to understand better the impact of emotions, particularly experiential emotions like hope. The SLR is a systematic process of critically reviewing the already-published paper (Paul & Criado, 2020). The SLR on emotions in SCB can offer several benefits. First, it provides an up-to-date state of the existing literature on emotions in SCB to academicians, marketers, and policymakers (Paul et al., 2021). Second, the SLR guides future researchers by offering several research gaps to enhance understanding of the literature on emotions, such as hope, in explaining SCB (Paul & Criado, 2020). Third, the SLR on emotions in explaining SCB also helps researchers understand methods (e.g., experiments, surveys, observation, ethnography)

to design and validate nomological networks containing SCB as a criterion variable (Kallio et al., 2016).

1.3 Research Context

This study selects consumers residing in Australia for two reasons. First, over the last decade, Australia has experienced environmental issues such as deforestation and sea pollution (Clark et al., 2019). A possible reason for such environmental damage is humans' unsustainable behaviour, such as natural resource depletion and an increase in food waste, which leads to the environmental deterioration of the country at a faster rate (Wymer & Polonsky, 2015). Further, according to a Commonwealth Scientific and Industrial Research Organisation report, deforestation costs approximately one billion AUD annually because it degrades the soil and water quality (Panda, 2022). In addition, food waste is another serious environmental issue in Australia. For instance, according to the Food Innovation Australia Limited report, individuals living in Australia generate approximately 7.5 million tonnes of food waste annually, which is considered more harmful to the environment than carbon dioxide because of methane (Fial, 2021).

Consequently, environmental concern among Australian consumers about saving the environment is rising (Bradley et al., 2020), which motivates consumers to adopt sustainable products (King & Boxall, 2019). Second, in 2019, 7.6% of GDP was contributed by the food sector because consumers preferred health and environment-friendly products (Wynn, 2019). Therefore, Australia is a suitable candidate to study the role of emotions in explaining SCB.

1.4 Research Questions

In line with the above-mentioned conceptual framework, the current research addresses the following primary research question:

- What is the role of emotions in explaining SCB?

This study develops four nested research questions derived from the primary research question. Broadly, the SLR addresses the first three nested research questions, RQ1, RQ2, and RQ3, while identifying gaps to develop and test eight hypotheses. A set of rationale and evidence from existing literature supports each hypothesis. The relationships among facilitators and barriers of SCB, as well as the positive emotions and SCB, were hypothesised to address RQ2 and RQ3. Additionally, we hypothesise that the conceptual model for consumers who stay at home compared to those at their destination varies at both group and path levels. This group moderation based on home and destination provides an answer for RQ4. Table 1.1 demonstrates how the nested research questions are answered in this study.

Table 1.1: Research questions

Nested Research question	**Statement**	**Approach**	**Analysis technique**
RQ1	What is the current state of the literature on the role of emotions in explaining SCB?	Systematic literature review	Theory-Context-Characteristics-Method
RQ2	What cognitive factors (inhibitors and facilitators) impact positive emotion(s) in SCB?	Hypothesis development of antecedents to emotions guided by systematic literature review	Structural equation modelling (CFA, Path analysis, and Moderation)
RQ3	Which positive emotion(s) may explain the link between cognitive factors and SCB?	Hypothesis development of emotions to SCB guided by systematic literature review	Indirect effect
RQ4	To what extent does SCB differs between home and destination?	Hypothesis development of mutligroup invariance guided by systematic literature review	Multi-group analysis (Measurement Invariance-Configural, Metric, Scalar, Error + Path Invariance)

1.5 Overview of Methodology

The current research employs two methods. First, the SLR provides an overview of the existing literature on emotions in SCB. This study adopts the Theory-Context-Characteristic-Method

(TCCM) approach to synthesise up-to-date literature on emotions in SCB (Paul & Criado, 2020). Second, the current research employs a positivist philosophy using a deductive approach and a survey method. The positivist approach allows the researcher to test the hypotheses through statistical tools (Creswell & Creswell, 2017). The study adopts a non-probability-based purposive sampling technique and targets those who are 18 or above and living in Australia. The data are collected with the help of a marketing research company (i.e., Qualtrics) using an online self-administrated questionnaire from general consumers in Australia.

This research employs the multivariate analysis technique: Structural Equation Modelling (SEM). The researchers use SEM to test the interrelationship and the level of impact between the predictor and outcome variables. SEM has two types: covariance and variance. The current research employs covariance-based SEM as the assumption to test the theory in the SCB domain (Reinartz et al., 2009).

Following the recommendation of Dogra et al. (2023) and Yadav et al. (2019), this study integrates the SEM analysis with a fuzzy set qualitative comparative analysis (fsQCA) to provide in-depth insights of sustainable consumption through consumer hope. The SEM provides nomological validity of linear relationships between the variables, while fsQCA provides multiple causal pathways to explain sustainable consumption.

1.6 Contribution

The current study aims to provide several theoretical and practical implications.

1.6.1 Theoretical implications

Literature on SCB suggests that research focuses majorly on explaining the cognitive mechanism of SCB using factors such as attitude and perceived behavioural control (Kim et al., 2013; Sukhu et al., 2019; Tarditi et al., 2020; Zhang & Wang, 2019), while a few studies employ affective mechanisms particularly positive emotions to predict SCB (Dong et al.,

2020; Kumar et al., 2021; Rowe et al., 2019). This research contributes to the literature by using consumer hope as one of the predictors of SCB. Further, this study is one of the first to propose consumer hope as a factor explaining the translation of cognitive factors into SCB. It also highlights the moderating role of environmental knowledge and consumer goal attainment in the SCB context. In addition, it is one of the first studies using the combination of the affect theory of social exchange and the broaden-and-build theory of positive emotions to study SCB. Last, this research is one of the first to compare an emotion-based sustainable consumption model at home with travel overseas.

1.6.2 Practical implications

This study offers practical implications for sustainable product marketers, brand managers, manufacturers, and policymakers. First, this study explains how positive emotions (hope) help consumers achieve their goals (i.e., SCB). The findings related to the role of hope in SCB may help marketers to align their marketing programmes of sustainable products based on the impact of consumers' emotions on their consumption decisions. Second, this study explains how consumers with environmental knowledge would be different from those with low knowledge of the environment in their approach towards SCB. Marketers can align their promotional strategies with findings related to environmental knowledge to disseminate their sustainable product benefits. Lastly, this study expects to produce different sets of SCB predictors, which provide directions on marketing and branding strategies to promote and position sustainable products more effectively.

1.7 Thesis Structure

The current research adopts Perry's (1998) thesis structure. This thesis is divided into six main chapters. A picturesque representation of the same is shown in Figure 1.3 below.

Chapter 2- Role of Emotions in Sustainable Consumption: A Systematic Review and Future Research Agenda

The chapter reviews the literature on emotions in SCB to synthesise the theory, context, characteristics, and methodology. The current study draws future research directions based on TCCM used in the research domain.

Chapter 3- Antecedents and Consequence of Consumer Hope for Sustainable Consumption

The chapter based on SLR employs three theories to support the research model. Further, this study draws upon, integrates, and synthesises the literature from SCB to propose a conceptual model. Nine hypotheses are formed to test the model's reliability and validity in an Australian context.

Chapter 4- Research Methodology

This chapter focuses on the research design the researcher adopts to address the research problem(s), including the positivist (quantitative) approach, the survey instrument development, the sampling technique, and the data collection method.

Chapter 5- Analyses and Findings

This chapter provides the participants' demographic profiles. It also presents the results of the measurement, structural, mediation and invariance models. Alongside SEM, fsQCA analysis is used to identify the factors predicting SCB.

Chapter 6- Discussion and Conclusion

This chapter concludes with the current study's findings and focuses on the research implications that are helpful for academicians, marketers, and policymakers. Finally, it explains the limitations and offers directions for further research in the future.

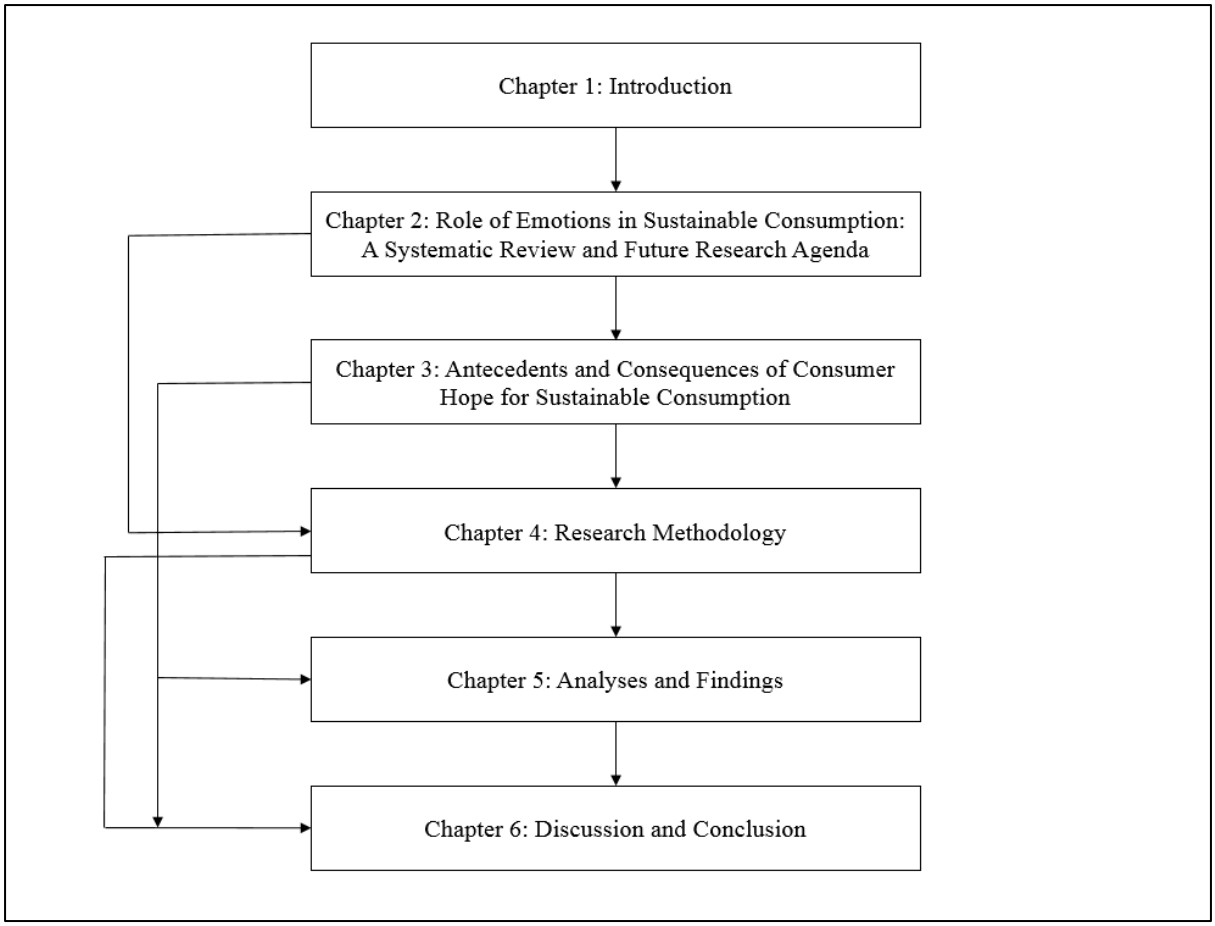


Figure 1. 2: The relationship between the chapters in the thesis

Chapter 2: Role of Emotions in Sustainable Consumption: A Systematic Review and Future Research Agenda

2.1 Introduction

Consumers face environmental problems (e.g., the growing level of greenhouse gases) and health problems (e.g., obesity) because of unsustainable consumption behaviour (Dong et al., 2022). To mitigate these problems, governments, policymakers, and environmental activists are creating global awareness among consumers about the benefits of SCB (Maseeh et al., 2022). In addition, some reports demonstrate that consumers intend to adopt sustainable consumption. For example, according to Forbes (2019), approximately 50% of consumers firmly intend to adopt environmentally friendly products, such as green apparel.

Similarly, Whelan and Kronthal-Sacco (2019) argued that the market share of products claiming sustainability on-pack increased from 14.3% in 2013 to 16.6% in 2018. Further, initiatives taken by the governments of almost every nation motivate consumers to shift their focus from non-sustainable products to sustainable ones (Kaur & Luchs, 2022). For instance, the global sustainable clothing market value was less than 4% in 2023 but was expected to reach 6.1 % by 2026 (Statista, 2022). The facts indicate a significant shift in the consumption behaviour paradigm. Moreover, this shift in consumption patterns reflects consumers' awareness of the environment and sustainable products and encourages manufacturers to focus on producing sustainable products. In short, consumers are gradually moving toward the SCB (Chen, 2020).

Extant literature suggests that marketing and tourism researchers have used interchangeably using sustainable, eco-friendly, green, recycled, and pro-environmental terminology to address environmental issues (Kaur & Luchs, 2022; Paul et al., 2016; Sun et

al., 2021). According to Wang et al. (2019, p. 869), SCB is "customer voluntary behaviours that support sustainability with the recognition of environmental and societal influences during consumption". SCB involves consumer willingness to consume products that improve environmental health (Kushwah, Dhir, & Sagar, 2019). Literature suggests that health concerns, environmental concerns, consumption values, social norms, and attitudes significantly determine SCB (Joshi & Rahman, 2015).

Psychologists such as Liang and Guo (2021) and Rowe et al. (2019) reported that emotions are also significant in motivating consumers to adopt sustainable products and play a vital role in SCB. Emotions are a response to interaction, including experiential, behavioural, and physiological factors (Hockenbury & Hockenbury, 2010). Emotions lead to affection and cognition, activating consumers' physiological adjustment and resulting in different behaviours and goal attainment (Kleinginna & Kleinginna, 1981).

Despite a gradual rise in the literature on emotion in SCB, the area remains fragmented and incoherent. For example, researchers such as Joshi and Rahman (2015) and Rana and Paul (2017) have reviewed the literature on SCB. They found that studies have focused on the antecedents of SCB. Likewise, most recently, Sharma et al. (2022) have synthesised the literature on sustainable purchasing behaviour and again identified that the research on predictors of SCB dominates the literature. Despite the role of emotions in predicting behaviours and their impact on consumer decisions to purchase sustainable products, the role of emotions in explaining SCB has attracted limited attention from researchers (Antonetti & Maklan, 2014b; Liang & Guo, 2021). Thus, providing a state-of-the-art synthesis of emotions in SCB literature requires an SLR.

SLR effectively indicates existing literature gaps and suggests research ideas for future studies in the given context (Adil et al., 2022). SLR employs a strict scientific methodological

design that is explicit, pre-specified, and reproducible, providing more robust and reliable gaps and future directions (Gopalakrishnan & Ganeshkumar, 2013, p. 10). Accordingly, an SLR on emotion in SCB would provide in-depth insights to practitioners and academicians (Sana et al., 2023). Therefore, this SLR purpose is threefold. First, to analyse the growth of literature on emotions in SCB literature in the last two decades. Second, to better understand the role of emotions in SCB literature, this study proposed a conceptual research model by synthesising the given literature. The last objective is to provide avenues for future researchers in the domain. This SLR has adopted Paul and Criado's (2020) systematic review method to achieve the given objectives.

After the introduction, this study discusses the methodology adopted to conduct this SLR in section 2.2. Findings and discussion are provided in section 2.3. Section 2.4 discuses existing research gaps in the literature on emotions in SCB. Lastly, section 2.5 discusses the conclusion of this SLR.

2.2 Systematic Review Methods

2.2.1 Review structure

SLR may be broadly categorised into "structured review, theory development reviews, framework-based reviews, bibliometric reviews, and hybrid review" (Paul & Criado, 2020, p. 2). A structured review describes widely employed theories, contexts, constructs, and methods in the given research domain (Adil et al., 2022; Aziz & Rahman, 2022; Sana et al., 2023); framework-based reviews help researchers in identifying drivers and consequences of any given phenomena (Singh et al., 2021). Next is a bibliometric review which can be conducted using VOSviewer to identify a research trend based on theories, citations, and authors' networks in a given research domain (Donthu et al., 2021). Theory-based reviews inform us about any theory in the research domain (Sahu et al., 2020). A hybrid reviews category provides

information about a research domain by integrating two types: structured and bibliometric reviews (Tandon, Kaur, et al., 2021).

Of the review types above, structured-based reviews offer comprehensive and in-depth insights to propose research gaps for future researchers in a research domain (Adil et al., 2022; Sharma et al., 2022). Therefore, this study uses a structured review method to identify the research gaps.

In line with previous structured-based review SLR studies such as Adil et al. (2022) and Jebarajakirthy et al. (2021), this study examines the role of emotions in developing the SCB research domain by synthesising the literature in terms of publications, outlets, and authors. This allows us to see how emotion in SCB literature progressed regarding major themes, authors, and publishing outlets. Further, this study uses the TCCM approach to synthesise the literature on emotions in SCB and achieves the first two objectives of this SLR. TCCM helps us understand theory and context-based developments, constructs (characteristics) based development to conceptualise a research model, and methodologies for advancement in emotions in SCB literature over the years. Finally, this study proposes future research agendas based on a TCCM method suggested by Paul and Criado (2020) to widely employed theories to understand the theory development in the research domain. By proposing future research agendas, this study would achieve its third objective.

2.2.2 Topic selection

Topic selection is crucial for an SLR (Adil et al., 2022). Studies such as Palmatier et al. (2018) and Snyder (2019) suggest that academicians should conduct an SLR on a topic that has not been examined. If this is not the case, they should be able to provide in-depth and novel insights into the research domain. Accordingly, this study identified 18 review-based papers published on SCB (see Table 2.1).

In line with Adil et al. (2022) and Jebarajakirthy et al. (2021), this study analyses these review-based papers on five parameters, namely, methods used to analyse the literature, review focus, types of articles reviewed in the study, number of articles and year range considered in the review paper. The comparative analysis demonstrates that even though some review-based studies are available on SCB, those published review-based articles have limitations that indicate the need to conduct an SLR on emotion in SCB. Table 2.1 demonstrates that nine out of 15 published review-based papers (ElHaffar et al., 2020; Joshi & Rahman, 2015; Kushwah, Dhir, Sagar, et al., 2019; Rana & Paul, 2017; Satta et al., 2019; Semprebon et al., 2019; Smith-Spangler et al., 2012; Testa et al., 2021; White et al., 2019) considered studies published up to and including 2018, and therefore these review-based articles are not updated. Since 2019, the literature on emotions in SCB has evolved and developed significantly.

Smith-Spangler et al. (2012) conducted a meta-analysis different from the structured-based review (Paul & Criado, 2020). Although meta-analyses and structure-based reviews synthesise the relevant literature, the former uses quantitative techniques to analyse the published papers. In contrast, the later uses a qualitative approach to synthesise the extant literature (Paul & Criado, 2020). Further, Semprebon et al. (2019) conducted review-based research using network analysis, which differs from structured-based reviews. Nine papers (ElHaffar et al., 2020; Elhoushy and Jang, 2023; Joshi & Rahman, 2015; Kushwah, Dhir, Sagar et al., 2019; Rana & Paul, 2017; Satta et al., 2019; Testa et al., 2021; Xiao et al., 2023; White et al., 2019) employed the structured-based reviews approach, but theirs focused on antecedents of SCB instead on emotions in SCB. Further, Table 2.1 shows that Elhoushy and Jang (2023) and Joshi and Rahman (2015) have considered emotions in their review paper, but they neglected to demonstrate how emotions motivate consumers to adopt SCB. A further problem is that both these reviews failed to employ established frameworks, such as TCCM, which provides a comprehensive analysis of the current state of the literature (Paul and Criado, 2020).

Therefore, their reviews failed to demonstrate how antecedents of SCB motivate consumers to adopt SCB.

The remaining nine papers of the 18 (Acampora et al., 2022; Elhoushy and Jang, 2023; Katt & Meixner, 2020; Kumari et al., 2022; Nagy et al., 2022; Sharma, 2021; Sharma et al., 2023; Xiao et al., 2023; Zhang & Dong, 2020) have considered studies up to and including 2022. One of these is the paper by Nagy et al. (2022), which published a bibliometric analysis to synthesise the literature on organic food consumption and its drivers. The remaining eight papers used a structured-based SLR approach to synthesise the literature on antecedents of SCB. The focus of these eight papers is mostly on non-emotion-based cognitive mechanisms. For instance, four of these papers have focused on innovation, cognitive decision-making, behavioural intentions to pay, post-consumption stage, and marketing mix. Despite its focus on emotions and the importance of a peripheral path in decision-making, marketing literature has not considered emotions to explain the effects of cognitive mechanisms of SCB.

Further, several studies were based on the theory of planned behaviour; the reviewed studies have not employed the construct of anticipated positive or negative emotions to explain the impact of cognitive factors on SCB. The above-mentioned review-based research papers lack state-of-the-art synthesis of emotions in SCB to study the literature development using constructs, methods, and contexts. Consequently, this lack of an up-to-date structured review on emotions in SCB warrants a requirement for an SLR to synthesise the literature on emotions in SCB using the TCCM approach to propose future research avenues.

Table 2. 1: Existing literature reviews on sustainable consumption behaviour

Author	**Literature review method**	**Review focus**	**Types of papers considered for review**	**Number of papers included**	**Year range**	**Publication Outlet**
Smith-Spangler *et al.* (2012)	Meta-Analysis	Organic foods consumption	All relevant published	237	1996-2011	Annals of Internal Medicine

			research articles			
Joshi and Rahman (2015)	Systematic review	Green purchase behaviour	Only articles published in selected journals	53	2000-2014	Internal Strategic Management Review
Rana and Paul (2017)	Systematic review	Organic food consumption behaviour	Only articles published in selected journals	146	1985-2015	Journal of Retailing and Consumer Services
Kushwah *et al.* (2019)	Systematic review	Consumers' value and inhibitors for organic food	Only articles published in selected journals	89	2005-2018	Food Quality and Preferences
Satta *et al.* (2019)	Literature review	Green innovations for sustainable tourism	Only articles published in selected journals	61	2008-2018	Tourism Analysis
Semprebon *et al.* (2019)	Network analysis review	Green consumption behaviour in marketing	Only articles published in selected journals	216	2000-2016	Marketing Intelligence & Planning
White *et al.* (2019)	Literature review	Sustainable consumption	Only articles published in selected journals	320	1972-2018	Journal of Marketing
ElHaffar *et al.* (2020)	Systematic review	Green consumption	Only articles published in selected journals	58	2002-2018	Journal of Cleaner Production
Katt and Meixner (2020)	Systematic review	Willingness to pay more (Behavioural Intention) for organic food	Only articles published in selected journals	138	1999-2019	Trends in Food Science & Technology
Zhang and Dong (2020)	Systematic review	Green purchase decision	Only articles published in selected journals	97	2015-2020	International Journal of Environmental Research and Public Health
Sharma (2021)	Systematic review	Green marketing	Only articles published in selected journals	232	2010-2020	International Journal of Consumer Studies
Testa *et al.* (2021)	Systematic review	Green consumption behaviour	Only articles published in selected journals	113	2000-2018	Environment, Development, and Sustainability
Acampora *et al.* (2022)	Systematic review	Green hotels	Only articles published in selected journals	600	Till 2019	Journal of Hospitality and Tourism Management

Kumari *et al.* (2022)	Systematic review	Green marketing	Only articles published in selected journals	103	2005-2021	Journal of Cleaner Production
Nagy *et al.* (2022)	Bibliometric and systematic review	Drivers of organic food consumption	Only articles published in selected journals	429	2002-2021	Plos One
Sharma et al. (2022)	Systematic review	Green purchase behaviour	Only articles published in selected journals	151	2000-2021	Business Strategy and the Environment
Elhoushy and Jang (2023)	Systematic review	Post-sustainable consumer behaviour	Only articles published in selected journals	87	2010-2022	International Journal of Consumer Studies
Xiao et al. (2023)	Systematic review	Social role in Green consumer behaviour	Only articles published in selected journals	439	2000-2020	International Journal of Consumer Studies
This SLR	**Systematic review based on TCCM framework**	**Role of emotions in SCB**	**Only articles published in selected journals**	**123**	**2004-Up to now**	**-**

2.2.3 Search strategy

After topic selection, the next step is the search strategy, which is to conduct an SLR. Palmatier et al. (2018) suggested that researchers should carefully select the database and keywords to retrieve the articles to have appropriate and maximum data for an SLR. The search strategy adopted in this SLR is explained below:

2.2.3.1 Keyword selection:

In line with Adil et al. (2022), Sana et al. (2023), and Talwar et al. (2020) keyword search strategy, this study explores the first 30 research papers on Google scholar using the keyword "emotions+sustainable consumption behaviour" to have a comprehensive keyword list. After screening the title, abstract, and keywords of those 30 research papers, this study found that the keyword "emotions" more frequently appears with "sustainable consumption behaviour", "green consumption", "green hotels", "pro-environmental behaviour", "green product", and

"sustainable tourism". Therefore, the keyword list appears as "emotions and sustainable consumption behaviour", "emotions and pro-environmental behaviour", "emotions and green consumption behaviour", "emotions and green hotel", "emotions and green product", "emotions and sustainable tourism". While the keyword "emotions" has been part of the search phrases, the studies also revealed specific positive and negative emotions and their role in SCB. This has been particularly helpful in indicating several specific emotions identified as contributors to SCB. More important in these findings were some emotions, such as hope, that were not studied despite their contribution to developing and shaping behaviour. Hence, this study searched for relevant journal articles in different databases using the abovementioned keywords.

2.2.3.2 Database selection and article selection:

In line with recent structured-based review papers published in A or A* of Australian Business Deans Council (ABDC) category journals (e.g., Adil et al., 2022; Aziz & Rahman, 2022; Sana et al., 2023), this study explores different databases such as ABI Inform/ProQuest, EBSCO Host, Emerald, Google Scholar, JSTOR, Sage, Scopus, Springer, ScienceDirect, Taylor and Francis, Web of Science, and Wiley Online Library to search for relevant papers on the topic. This study considers only those papers retrieved using the databases mentioned above.

2.2.4 Journal selection and inclusion/exclusion criteria:

In line with the previously published SLRs such as Adil et al. (2022) and Chauhan et al. (2022), this study shortlisted the research articles from the retrieved databases by setting exclusion/inclusion criteria. Accordingly, this research reviews only those articles that (a) are published in the English language, (b) should be scholarly work, (c) are published in peer-reviewed journals, and (d) should be either published in journals that are classified as either A

or above in ABDC journal quality list or have an impact factor of 3 or above the in-journal citation report 2022.

Using the selected keywords, this study retrieved 532 research articles from databases (See Figure 2.1). First, this study removed 376 duplicate research articles from the data set. After deleting duplicate journal articles, we found 156 research articles with the keyword 'emotion' either as a construct or concept in SCB literature. Of the 156 research papers, this study excluded five because these were either published in a book or conference proceedings. In addition, 28 research papers were deleted as these were not published in peer-reviewed journals, and three were not of the appropriate ABDC quality/ impact. Further, we identified three journal articles in back-referencing. Lastly, after implementing exclusion criteria and back-referencing, this SLR examined 123 journal articles on emotions in SCB literature.

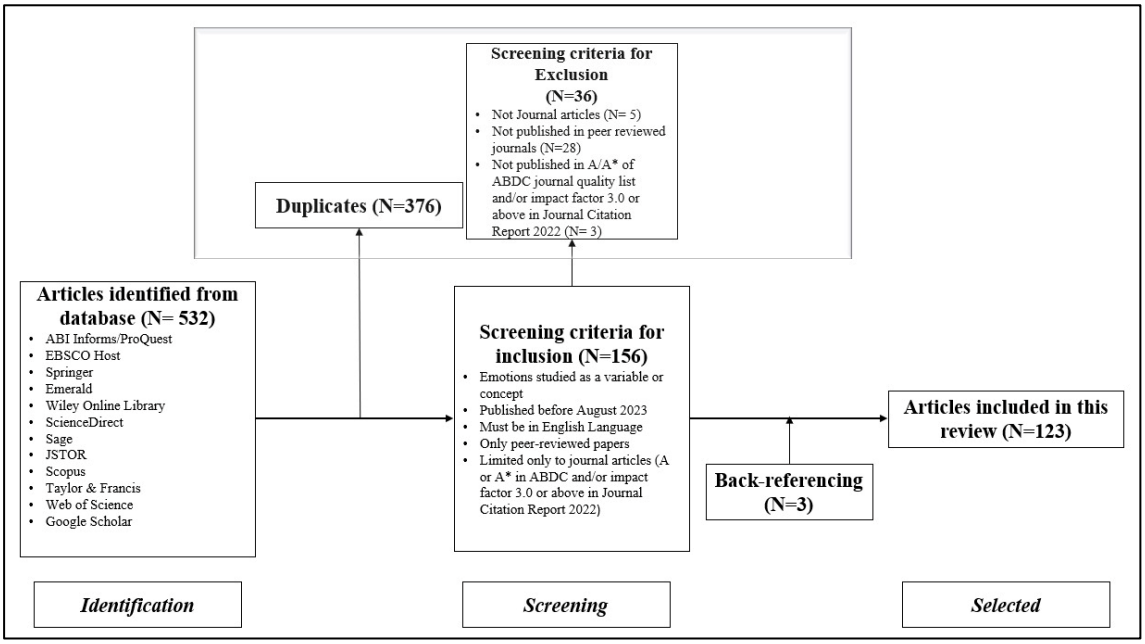


Figure 2. 1: Inclusion and exclusion criteria

2.3 Findings and Discussion

The current research comprises 123 journal articles on emotions in SCB literature. Appendix 1 demonstrates the details of considered journal articles in terms of the author's name, the title of the journal article, citations on Google Scholar (28 March 2025), year of publication, and

journal name. The selected 123 research articles were reviewed to achieve the first two objectives of this SLR, i.e., advancement in the literature on emotions in SCB over the years and conceptualising the research models based on widely discussed constructs to demonstrate the role of emotions in SCB uptake. Following this, the current study systematically synthesises the literature.

2.3.1 Development of the emotions in SCB research over time:

This study analyses 123 research papers in terms of publications per year over 21 years. The result indicates that the first paper on emotions in SCB was published in 2004, considered a starting year for emotions in SCB publication (see Figure 2.2).

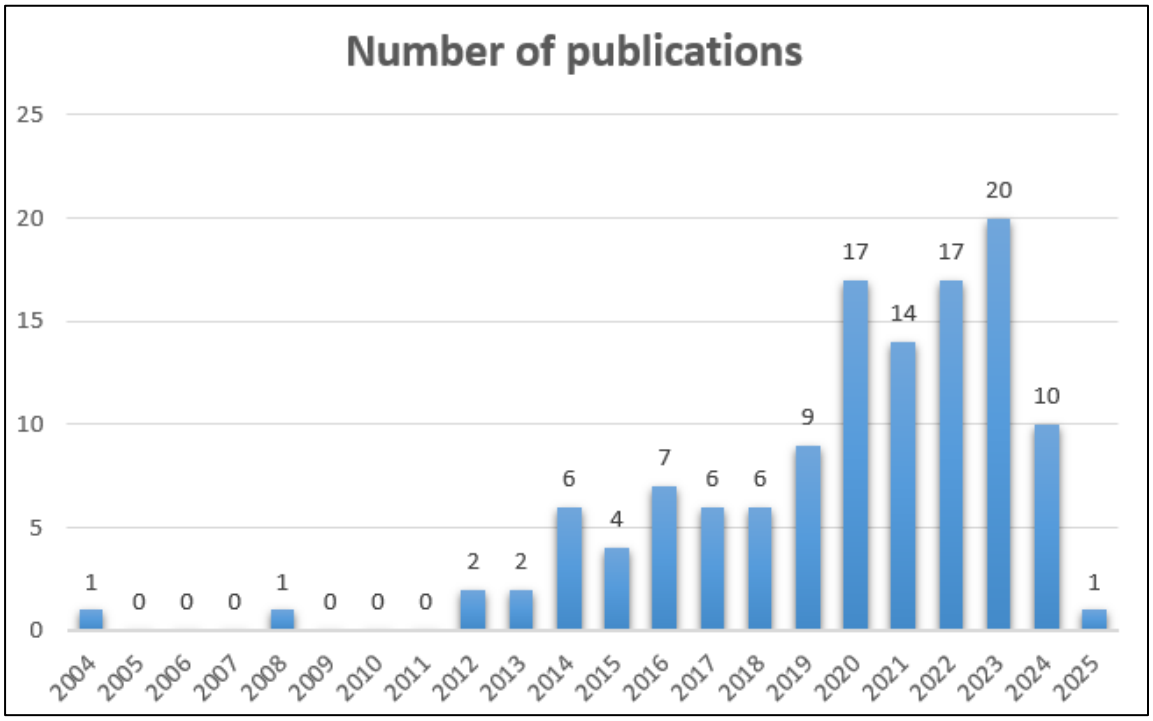


Figure 2. 2: Publication by year

Research on emotions in SCB literature emerged two decades ago, i.e., in 2004. After 2004, no criteria were driven publications for three consecutive years (2005, 2006, and 2007). After that, one paper on emotions in SCB was published in 2008. Again, zero publication was observed for three consecutive years, i.e., 2009, 2010, and 2011. Subsequently, there was a

recovery in the number of publications on emotions in SCB in 2012 and 2013, with two publications per year. 2014, there was a significant uplift in publications, with six studies published. Similarly, in 2016, seven studies were published. Further, more publications appeared from 2019 to 2023 than from 2004 to 2018 papers. For instance, 9, 18, 14, 16, and 20 publications were observed, specifically in 2019, 2020, 2021, 2022 and 2023, respectively. A possible reason for such growth in recent years is that government and regulatory agencies' awareness of SCB was more common than in the previous year. Arguably, the perceived benefits of SCB on personal and social wellbeing contributed to the growth of publications that considered emotions (El-Haffar *et al.*, 2020; Kapoor *et al.*, 2023).

2.3.2 Publication outlets

This study analyses data in terms of publication outlets. Table 2.2 demonstrates that 42 journals have published research papers on emotions in the SCB context. Further, Table 2.2 highlights that scholars have published papers on emotions in SCB in marketing, tourism and hospitality, management, and psychology journals. The result reflects that the Journal of Retailing and Consumer Services published the most articles (n=12) on emotions in SCB, followed by the Journal of Cleaner Production (n=10), and the Journal of Sustainable Tourism (n=9).

Table 2. 2: Journals include in this review

No.	Journal	#	Articles	JCR Impact Factor	ABDC
1	Journal of Retailing and Consumer Services	12	Chang *et al.* (2024); Haj-Salem *et al.* (2022); Jiang *et al.* (2024); Kim and Koo (2020); Kumar *et al.* (2021); Kumar (2023); Lu and Kwan (2023); Maduku (2024); Septianto and Kemper (2021); Sirieix *et al.* (2017); Sreen *et al.* (2021); Talwar *et al.* (2022)	10.4	A
2	Journal of Cleaner Production	10	Dong *et al.* (2020); Jiang *et al.* (2020); Juvan and Dolnicar (2017); Lavuri (2022); Sharma and Paço (2021); Talwar *et al.* (2021a); Wang and Wu (2016); Ye *et al.* (2022)	11.1	A

3	Journal of Sustainable Tourism	9	Erul *et al.* (2020); Fazal-e-Hasan *et al.* (2024); Han *et al.* (2017); Mkono and Hughes (2020); Qiu *et al.* (2022); Tanford *et al.* (2020); Tran et al. (2024); Zhao et al. (2023) Zheng *et al.* (2020)	9.0	A*
4	Journal of Environmental Psychology	7	Adams *et al.* (2020); Bissing-Olson *et al.* (2016); Carrus *et al.* (2008); Hurst and Sintov (2022); Jacobs and McConnell (2022); Lacasse (2016); Truelove and Nugent (2020)	6.9	
5	Journal of Business Ethics	6	Amatulli *et al.* (2019); Antonetti and Maklan (2014b); Culiberg *et al.* (2022); Septianto *et al.* (2021); Spielmann (2021); Theotokis and Manganari (2015)	6.1	A
6	Business Strategy and the Environment	6	Bläse *et al.* (2023); Chao and Yu (2023); Han *et al.* (2018); Lavuri *et al.* (2023); Rezvani *et al.* (2018); Yang *et al.* (2023)	13.4	A
7	Journal of Business Research	6	Bhattacharyya *et al.* (2023); Grappi *et al.* (2024); Jabeen et al. (2023); Kadic-Maglajlic *et al.* (2019); Nascimento and Lourieri (2024); Yang *et al.* (2015)	11.3	A
8	International Journal of Consumer Studies	5	Burhanudin *et al.* (2021); Cowan and Kinley (2014); Lagomarsino and Lemarie (2024); Wang *et al.* (2020); Wang *et al*., (2022)	9.9	A
9	Asia Pacific Journal of Tourism Research	4	Meng and Choi (2016); Moon *et al.* (2016); Zhang *et al.* (2018); Zhao *et al.* (2020)	5.0	A
10	Journal of Consumer Behaviour	4	Berquist *et al.* (2020); Fazal-e-Hasan *et al.* (2025); Hu and Meng (2023); Kautish et al. (2023)	4.3	A
11	Psychology & Marketing	4	Antonetti and Maklan (2014a); Liang and Guo (2021); Rowe *et al.* (2019); Zhang *et al.* (2023)	6.7	A
12	Appetite	3	Hoek *et al.* (2017); Lockie *et al.* (2004); Sahakian *et al.* (2020)	5.4	A
13	Journal of Hospitality and Tourism Management	3	Hu and Dang-Van (2023); Liu *et al.* (2022); Wang *et al.* (2021)	8.3	A
14	Marketing Intelligence & Planning	3	Mishra et al. (2024); Shimul and Cheah (2023); Souto Maior *et al.* (2022)	4.4	A
15	Journal of Travel and Tourism Marketing	2	Han *et al.* (2017); Han and Hyun (2018)	7.2	A
16	International Journal of Contemporary Hospitality Management	2	Han *et al.* (2020); Su *et al.* (2017)	11.1	A
17	International Journal of	2	Kim *et al.* (2013); Sukhu *et al.* (2019)	11.7	A*

	Hospitality Management				
18	Cornell Hospitality Quarterly	2	Barber and Deale (2014); Blose *et al.* (2015)	3.5	A
19	Current Issues In Tourism	2	Ahn and Kwon (2020); Mishra and Gupta (2019)	8	A
20	International Journal of Advertising	2	Chang (2012); Chen (2016)	6.7	A
21	Journal of Advertising	2	Hartmann *et al.* (2016); Matthes and Wonneberger (2014)	5.7	A
22	Journal of Consumer Marketing	2	Elgaaied (2012); van Tonder *et al.* (2020)	2.8	A
23	Australasian Marketing Journal	2	McCarthy and Liu (2017); Septianto and Lee (2020)	6.0	A
24	Sustainability	2	Tapia-Fonllem *et al.* (2013); Zhang and Wang (2019)	3.9	
25	Asia Pacific journal of Marketing and Logistics	2	Nallaperuma *et al.* (2022); Wu and Cheng (2019)	3.7	A
26	Journal of Consumer Affairs	2	Roster and Ferrari (2023); Soesilo *et al.* (2021)	2.8	A
27	Journal of Academy of Marketing Science	2	Xie *et al.* (2015); Yan *et al.* (2023)	18.2	A*
28	European Journal of Marketing	2	Chou *et al.* (2023); Kapoor *et al.* (2023)	5.18	A*
29	Journal of Marketing Management	1	Flores and Jansson (2022)	4.4	A
30	Journal of Consumer Research	1	Tezer and Bodur (2020)	8.63	A*
31	Journal of Product & Brand Management	1	Papista and Dimitriadis (2019)	5.6	A
32	International Journal of Tourism Research	1	Akhshik *et al.* (2021)	4.6	A
33	Journal of Experimental Social Psychology	1	Graton *et al.* (2016)	3.5	
34	PLOS ONE	1	Moghavvemi *et al.* (2020)	3.75	
35	Environment and Behavior	1	Tarditi *et al.* (2020)	5.7	
36	Journal of Service Theory and Practice	1	Leisen Pollack (2021)	4.6	A

37	Tourism Management	1	Han and Hyun (2018)	12.7	A*
38	Journal of Destination Marketing & Management	1	Bahja and Hancer (2021)	8.4	A
39	Journal of Hospitality & Tourism Research	1	Barber (2012)	4.2	A
40	Journal of Hospitality Marketing & Management	1	Raza *et al.* (2023)	12.5	A
41	Tourism Management Perspectives	1	Chen and Peng (2023)	8.7	A
42	Journal of Environmental Management	1	Lavuri et al. (2023b)	8.7	A

2.3.3 Authorship

Following Adil et al. (2022) and Sana et al. (2023), this study analyses the data regarding citations received by publications. Table 2.3 demonstrates that Carrus et al. (2008) have been cited by 943 research articles, the most among the papers on emotion in SCB. Lockie et al. (2004) and Antonetti and Maklan (2014b) were the second (706) and third (660) most cited articles. Further, Table 2.3 also shows research articles with average citations received per year. Of 10 articles, Antonetti and Maklan (2014b) have the highest average, i.e., 60 citations per year, followed by Carrus et al. (2008) and Kim et al. (2013), which has 55.47 and 54. citations per year, respectively.

Table 2. 3: Ten most cited studies

Rank	**Study**	**Journal**	**Citations[1]**	**Average citations per year[2]**
1	Carrus *et al.* (2008)	Journal of Environmental Psychology	943	55.47
2	Lockie *et al.* (2004)	Appetite	706	33.62
3	Antonetti and Maklan (2014b)	Journal of Business Ethics	660	60
4	Kim *et al.* (2013)	International Journal of Hospitality Management	655	54.58
5	Xie *et al.* (2015)	Journal of Academy of Marketing Science	429	42.9

6	Hoek *et al.* (2017)	Appetite	412	51.5
7	Matthes and Wonneberger (2014)	Journal of Advertising	387	35.18
8	Bissing-Olson *et al.* (2016)	Journal of Environmental Psychology	397	44.11
9	Tapia-Fonllem *et al.* (2013)	Sustainability	349	29.08
10	Yang *et al.* (2015)	Journal of Business Research	341	34.1

[1]Based on Google Scholar (28/03/2025)
[2]Total number of citations divided by the number of years after article publication

2.3.4 Widely discussed theories

This study examines 123 research papers based on the theories employed. Table 2.4 shows that researchers have used 48 theories to study emotions in SCB over two decades. Among these, the theory of planned behaviour has been the most commonly employed in the given domain, with 17 studies. The stimulus-organism-response comes next in nine studies. Further, norm activation and value-belief-norm theories have been employed in five studies. Approximately 30% of studies considered for this SLR have used the theory of planned behaviour, norm-activation theory, value-belief-norm theory, or stimulus-organism-response. This reflects that researchers have mainly relied on these behavioural theories to study SCB.

Table 2. 4: Theories used in Emotions in SCB

Theory	**No. of Studies**	**Articles**
Theory of planned behaviour	17	Burhanudin *et al.* (2021); Carrus *et al.* (2008); Chang *et al.* (2024); Chao and Yu (2023); Elgaaied (2012); Erul *et al.* (2020); Haj-Salem *et al.* (2022); Han and Hyun (2018); Han *et al.* (2020); Hoek *et al.* (2017); Jiang *et al.* (2020); Khalek and Chakraborty (2023); Kim *et al.* (2013); Meng and Choi (2016); Meng and Han (2016); Sukhu *et al.* (2019); Y. Zhang *et al.* (2018); Zhang and Wang (2019)
Stimulus-organism-response	9	Chen *et al.* (2024); Hu and Dang-Van (2023); Kumar *et al.* (2021); Lavuri *et al.* (2023a); Lavuri et al. (2023b); Su *et al.* (2017); Talwar, *et al.* (2021b); Wang *et al.* (2022); Yang *et al.* (2023)
Norm Activation Theory	5	Elgaaied (2012); Han *et al.* (2017); Han *et al.* (2020); Qiu *et al.* (2022); Zhao *et al.* (2020)
Value-Belief-Norm Theory	5	Han *et al.* (2017); Han *et al.* (2020); Kadic-Maglajlic *et al.* (2019); Kautish et al. (2023); Moghavvemi *et al.* (2020)
Goal-Directed Model	4	Carrus *et al.* (2008); Meng and Han (2016); Nascimento and Loureiro (2024); Zhang and Wang (2019)
Appraisal Theory	3	Antonetti and Maklan (2014b); Bissing-Olson *et al.* (2016); Rowe *et al.* (2019)

Self-Regulatory Theory	3	Burhanudin et al. (2021); Hu and Meng (2023); Maduku (2024)
Construal Level Theory	3	Lagomarsino and Lemarié (2024);Septianto and Lee (2020); Yang *et al.* (2015)
Goal Framing Theory	2	Bergquist *et al.* (2020); Rezvani *et al.* (2018)
Theory of Consumption Values	2	Bhattacharya *et al.* (2023); Chang *et al.* (2024)
Prospect Theory	2	Blose *et al.* (2015); Tanford *et al.* (2020)
Theory of Reasoned Action	2	Han *et al.* (2020); Sukhu *et al.* (2019)
Social Exchange Theory	2	Dong *et al.* (2020); Tran et al. (2024)
Behavioural Reasoning Theory	2	Meng and Choi (2016); Sreen *et al.* (2021)
Moral Foundation Theory	2	Culiberg *et al.* (2022); Jacobs and McConnell (2022)
Complexity Theory	2	Akhshik *et al.* (2021); Bhattacharya *et al.* (2023)
Cognitive Appraisal Theory	2	He *et al.* (2022); Mishra *et al.* (2024)
Self-Determination Theory	2	Bläse *et al.* (2023); Dong *et al.* (2018)
Conservation of Resource Theory	1	Liu *et al.* (2022)
Theory of Interpersonal Behaviour	1	Khalek and Chakraborty (2023)
Social Dilemma Theory	1	Zheng *et al.* (2020)
Cognitive-Affective-Conative	1	Ahn and Kwon (2020)
Rational Actor Theory	1	Tarditi *et al.* (2020)
Goal System Theory	1	Hoek *et al.* (2017)
Attitude Behavior Context theory	1	Lavuri (2022)
Self-Discrepancy Theory	1	Zhang *et al.* (2023)
Cognitive Dissonance Theory	1	Mkono and Hughes (2020)
Social Cognitive Theory	1	Hu and Meng (2023)
Social Impact Theory	1	Chang (2012)
Identity Theory	1	Hurst and Sintov (2022)
Cognitive Theory of Emotion	1	Amatulli *et al.* (2019)
Emotional Regulation Theory	1	Kadic-Maglajlic *et al.* (2019)
Social Identity theory	1	Dong *et al.* (2020)
Theory on Emotional Affinity	1	Dong *et al.* (2020)
Broaden and Build Theory	1	Chou *et al.* (2023)
Perception Theory	1	Hartmann *et al.* (2016)
Attribution Theory	1	Hartmann *et al.* (2016)
Virtue Theory	1	Spielmann (2021)

Theory of Positive Behavioral Spillover	1	Spielmann (2021)
Theory of Fear Appeal	1	Chen (2016)
Dual Concern Theory	1	Kim and Koo (2020)
Elaboration Likelihood Model	1	Kumar (2023)
Psychological Reactance Theory	1	Septianto and Kemper (2021)
Evolution Theory	1	Lu and Kwan (2023)
The Helplessness-Hoplessness Theory	1	Wang and Lei (2021)
Costly Signalling Theory	1	Souto Maior *et al.* (2022)
Expectancy Theory	1	Talwar *et al.* (2021a)
Uncanny Valley Theory	1	Jiang *et al.* (2024)
Psychodynamic Theory	1	Wang et al. (2022)
Goal Attainment Theory	1	Fazal-e-Hasan *et al.* (2024)

Following Aziz and Rahman (2022), this SLR has focused on widely employed theories to examine the role of emotions in SCB literature. This section briefly discusses theories used in four or more studies.

2.3.4.1.Theory of planned behaviour:

The central idea of the theory of planned behaviour is behavioural intentions, which are consumers' willingness to perform a specific behaviour. Behavioural intentions exhibit a high predictive power of actual behaviour (Paul et al., 2016), and this theory is widely employed in the marketing and tourism literature. According to the theory of planned behaviour, attitude, subjective norms, and perceived behavioural control are the main predictors of purchase intentions (Ajzen, 1991), leading to actual behaviour. With the help of theory of planned behaviour, researchers such as Burhanudin et al. (2021), Haj-Salem et al. (2022), and Sukhu et al. (2019) integrate emotions with theory of planned behaviour variables to measure consumers' actual behaviour. Burhanudin et al. (2021) argued that consumers on the higher side of the guilt scale tend to exhibit positive attitudes and strong intentions to use green banking. Similarly, strong emotions influence consumers' word of mouth (Sukhu et al., 2019).

Consumers with positive emotions, such as pride, are likelier to perform consumption behaviour than those with negative emotions, such as anger.

2.3.4.2 Norm activation theory:

Developed by Schwartz (1977), the norm activation theory suggests that consumers' awareness of the existing problem, ascribed responsibility, and personal norms predict behavioural intention and actual behaviour. Qiu et al. (2022) and Zhao et al. (2020) employed norm activation theory to study the influence of emotions (positive and negative) on actual tourist behaviour. They argued that awareness of consequences and ascription of responsibility lead to emotions, i.e., positive or negative and personal norms, which leads to tourists' actual environmental-friendly behaviour.

2.3.4.3 Value-belief-norm theory:

Stern (2000) postulated that consumers' egoistic or altruistic perspectives serve as motivators for environmental protection or problem-solving. This theory helps researchers establish the linear relationship between values, beliefs, norms, and behaviour. Scholars such as Han et al. (2017) and Kadic-Maglajlic et al. (2019) extended the value-belief-norm theory by integrating emotions to study individuals' actual sustainable behaviour. Han et al. (2017) found that individuals' values significantly influence their beliefs and norms, which motivates them to perform sustainable behaviour.

2.3.4.4 Stimulus-organism-response:

In the realm of environmental psychology, Mehrabian and Russell (1974) proposed the Stimulus-Organism-Response theory as a means of elucidating consumer behaviour. They argue that environmental factors can stimulate consumers' internal state (organism), leading to a particular behaviour (response). For example, Su et al. (2017) suggested that the perception

of corporate social responsibility stimulates consumers' emotions, which results in green consumer behaviour. Similarly, Wang et al. (2021) found that a perceived sustainability-related climate encourages emotional passion among consumers, motivating them to perform pro-environmental behaviour. Thus, this theory supports that the presence of a good stimulator can generate emotions, resulting in the target behaviour.

2.3.5 Context

Context is a situation wherein research is conducted (Sana et al., 2023). Following previous published SLRs (Adil et al., 2022; Jebarajakirthy et al., 2021; Sana et al., 2023), this study considers sample type, the platform used, and countries selected to collect the data as contexts. Table 2.5 demonstrates that 60.97% and 30.08% of empirical studies collected data from consumers and tourist respondents, respectively—the remaining 10.56% of considered studies collected data from the general public. Thus, researchers have considered demographically varied samples for emotions in SCB research.

Further, to analyse the platform used for the data collection on emotions in SCB literature, this SLR identified that 56.34% and 42.06% of empirical studies collected data using online and offline platforms, respectively. Only 1.59% of considered studies collected data from both online and offline platforms. The information shows that researchers in the domain have considered both platforms to collect data and study the role of emotions in SCB. Table 2.5 shows that 25 countries were used for data collection to study emotions in SCB. Approximately 30% of the total studies considered in this SLR were conducted in the US (n=35), followed by China (n=29), India (n=11), and Australia (n=8); 77 (62.6%) studies were conducted in developed countries, including the US, UK, Australia, and France.

Table 2. 5: Context

Context	Frequency	Percentage	Context	Frequency	Percentage
Sample			***Countries***		
Consumers	75	60.97	UKMalaysia	3	2.44
Tourists	37	30.08	UAE	2	1.63
General	13	10.56	Malaysia	2	1.63
Platform			Mexico	1	0.81
Online	71	56.34	Brazil	1	0.81
Offline	53	42.06	Croatia	1	0.81
Online+Offline	2	1.59	Slovenia	1	0.81
Countries			Turkey	1	0.81
US	35	28.46	New Zealand	1	0.81
China	29	23.02	Czech Republic	1	0.81
India	11	8.94	Cyprus	1	0.81
Australia	8	6.5	Athens	1	0.81
France	5	4.1	Denmark	1	0.81
Taiwan	5	4.1	Norway	1	0.81
South Korea	4	3.25	Pakistan	1	0.81
Switzerland	3	2.44	South Africa	1	0.81
Sweden	3	2.44			

[a]For some studies, the data were collected from multiple countries.

Moreover, Figure 2.3 indicates that emotions within the context of SCB have been investigated across various research areas, including marketing, tourism, and hospitality. Most of the studies (n= 79; 64.23%) were carried out within the marketing domain, followed by tourism and hospitality (n=37; 30.08%) and others (n= 9; 7.32%).

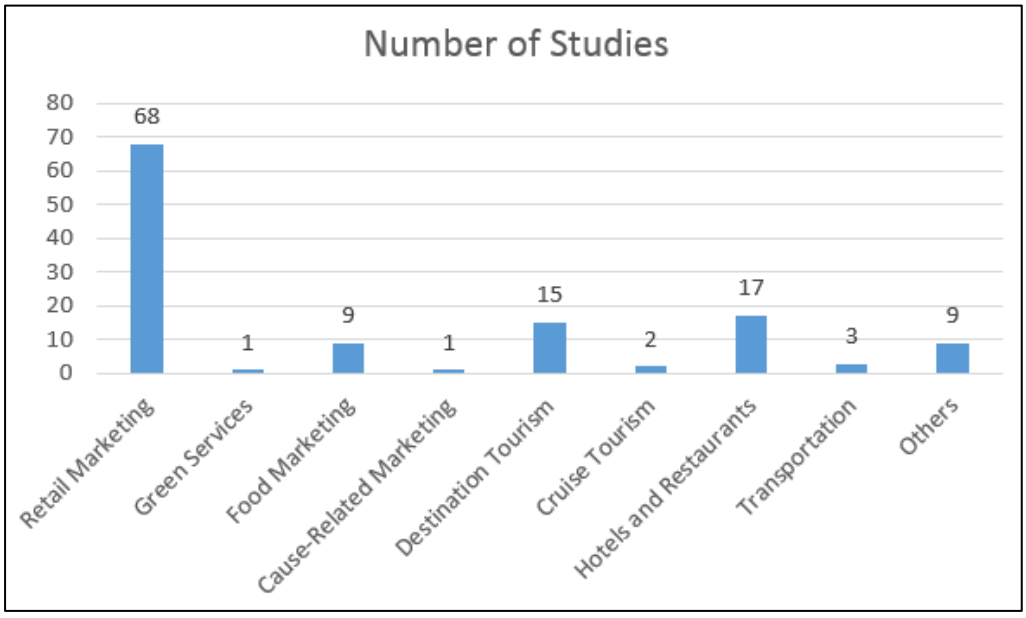


Figure 2. 3: Distribution by SCB domain

2.3.6. Frequently discussed variables

This SLR's second research objective is to conceptualise the emotions model in SCB literature by positioning constructs as antecedents, mediators, moderators, and consequences (see Figure 2.4). To achieve this objective, we have conducted a word cloud analysis to identify the frequently used variables using the wordcloud.com. Further, we conducted a thematic analysis on the results of word cloud analysis to identify the themes of variables (see Table 2.6). Existing literature suggests that antecedents of emotions in the SCB research domain can be categorised as internal factors (Burhanudin *et al.*, 2021) and external factors (Amatulli *et al.*, 2019). These factors can generate positive or negative emotions (Adams *et al.*, 2020). For example, Spielmann (2021) suggests that consumers with positive perceptions of sustainable products tend to experience positive emotions, which motivates them to consume sustainable products. Similarly, when consumers are conscious of the potential adverse outcomes associated with the consumption of non-sustainable products, they are likely to expect positive emotions when engaging in SCB.

On the contrary, they may anticipate negative emotions like shame if they fail to exhibit SCB (Qiu et al., 2023). Further, emotions lead consumers to exhibit particular behaviour (Akhshik *et al.*, 2021). Based on the type of emotions, consumers' behavioural outcomes can be positive (e.g., high on SCB) or negative (e.g., low on SCB). For instance, Septianto et al. (2021) suggest incorporating positive emotions such as pride or gratitude in sustainable product advertisements to increase consumers' intentions.

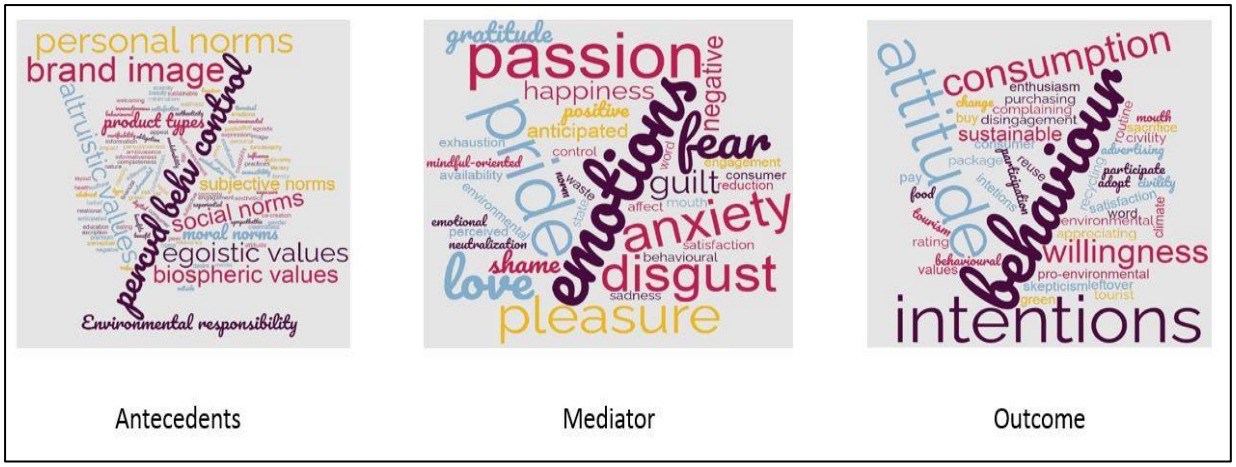


Figure 2. 4: Widely Used Variables

Table 2. 6: Widely discussed variables

Variables	Source
Antecedents	
Internal factors	
Perceived behavioural control	Burhanudin et al. (2021); Carrus et al. (2008); Elgaaied (2012); Erul et al. (2020); Haj-Salem et al. (2022); Han, Kim, et al. (2018); Han et al. (2020); Hoek et al. (2017); Jiang et al. (2020); Kim et al. (2013); Meng and Han (2016); Y. Zhang et al. (2018); Zhang and Wang (2019)
Environmental responsibility	Cowan and Kinley (2014); Culiberg et al. (2022); Han et al. (2018); Lockie et al. (2004); Wang et al. (2021); Wu and Cheng (2019); Xie et al. (2014)
Environmental values (Altruistic, Egoistic, and Biospheric)	Ahn and Kwon (2020); Bahja and Hancer (2021); Han et al. (2018); Han et al. (2017); Han and Hyun (2018); Jacobs and McConnel (2022); Kim and Koo (2020); Lavuri (2022); Maduku (2024)
Personal norms	Juvan and Dolnicar (2017); Moghavvemi et al. (2020); Qiu et al. (2022); Zhao et al. (2020)
Brand image	Han, Kim, et al. (2018); Han et al. (2020); Septianto and Lee (2020); Tanford et al. (2020)
External factors	
Social norms (Subjective norms, Moral norms)	Bergquist et al. (2020); Carrus et al. (2008); Elgaaied (2012); Erul et al. (2020); Haj-Salem et al. (2022); Han and Hyun (2018); Han et al. (2020); Hoek et al. (2017); Jiang et al. (2020); Juvan and Dolnicar (2017); Kim et al. (2013); Meng and Han (2016); Nascimento and Loureiro (2024); Sirieix et al. (2017); Sukhu et al. (2019); Talwar et al. (2022); Zhang and Dong (2020); Zhang and Wang (2019)
Product type	Amatulli et al. (2019); Lu and Kwan (2023); Spielmann (2021); Tezer and Bodur (2020)
Mediator	
Positive emotions (Pride, Passion, Love, Pleasure)	Adams et al. (2020); Ahn and Kwon (2020); Dong et al. (2018); Dong et al. (2020); Fazal-e-Hasan et al. (2024); Fazal-e-Hasan et al. (2025); Han et al. (2017); Han, Olya, et al. (2018); Kim and Koo (2020); Moon et al. (2016); Qiu et al. (2022); Rowe et al. (2019); Spielmann (2021); Su et al. (2017); Sukhu et al. (2019); Tarditi et al. (2020); Wang et al. (2021); Wu and Cheng (2019); Ye et al. (2022)

Negative emotions (Guilt, Disgust, Fear Shame)	Adams et al. (2020); Ahn and Kwon (2020); Amatulli et al. (2019); Elgaaied (2012); Fazal-e-Hasan et al. (2024); Han et al. (2017); Han, Kim, et al. (2018) Jiang et al. (2020); Lacasse (2016); Lu and Kwan (2023); Qiu et al. (2022); Septianto and Lee (2020); Sharma and Paço (2021); Theotokis and Manganari (2015); Truelove and Nugent (2020)
Moderator	
Environmental concern	Amatulli et al. (2019); Haj-Salem et al. (2022); Liu et al. (2022); Papista and Dimitriadis (2019); Theotokis and Manganari (2015)
Culture	Juvan and Dolnicar (2017); Sharma and Paço (2021); van Tonder et al. (2020)
Consequences	
Behavioural outcome	
Environmental attitude	Ahn and Kwon (2020); Bissing-Olson et al. (2016); Burhanudin et al. (2021); Carrus et al. (2008); Haj-Salem et al. (2022) Han and Hyun (2018);Han et al. (2020); Hartmann et al. (2016); Hoek et al. (2017); Jiang et al. (2020); Kim et al. (2013); Lavuri (2022); McCarthy and Liu (2017); Meng and Han (2016); Moghavvemi et al. (2020) Shimul and Cheah (2023); Sirieix et al. (2017); Sreen et al. (2021); S. Talwar, F. Jabeen, et al. (2021); Tanford et al. (2020); van Tonder et al. (2020); Wang et al. (2021); L. Zhang et al. (2018); Zhang and Wang (2019)
Behavioural intentions	Ahn and Kwon (2020); Bahja and Hancer (2021); Burhanudin et al. (2021); Chang (2012); Chang et al. (2024); Chen (2016); Cowan and Kinley (2014); Elgaaied (2012); Erul et al. (2020); Haj-Salem et al. (2022); Han et al. (2017); Han and Hyun (2018); Han, Kim, et al. (2018); Han et al. (2020); Jiang et al. (2020); Jiang et al. (2024); Kim et al. (2013); Moghavvemi et al. (2020); Nallaperuma et al. (2022); Rezvani et al. (2018); Rowe et al. (2019); Septianto and Lee (2020); Shimul and Cheah (2023); Spielmann (2021); Tanford et al. (2020); Tezer and Bodur (2020); Theotokis and Manganari (2015); Wang and Wu (2016); Wang et al. (2019); Wu and Cheng (2019); Yang et al. (2015); Zhang and Wang (2019)
Actual behaviour	Adams et al. (2020); Akhshik et al. (2021); Amatulli et al. (2019); Barber and Deale (2014); Bergquist et al. (2020); Bissing-Olson et al. (2016); Bradley et al. (2020); Carrus et al. (2008); Dong et al. (2018); Dong et al. (2020); Graton et al. (2016); He et al. (2022); (Jacobs & McConnell, 2022); Juvan and Dolnicar (2017); Kadic-Maglajlic et al. (2019); Kim and Koo (2020); Lockie et al. (2004); (Lu & Kwan, 2023); McCarthy and Liu (2017); Mkono and Hughes (2020); Spielmann (2021); Su et al. (2017); Tarditi et al. (2020); Truelove and Nugent (2020); Wang et al. (2021); L. Zhang et al. (2018); (Zhao et al., 2020)
Consumer willingness	Blose et al. (2015); Han et al. (2017); Lu and Kwan (2023); Tanford et al. (2020); Ye et al. (2022)

2.3.6.1 Antecedent of emotions:

A. Internal factors:

These can be referred to as factors within the person, such as knowledge, personality traits, and values. Individuals' characteristics influence their consumption (Burhanudin et al., 2021). Generally, consumers' strong attitudes toward the environment and sustainable products result

in the SCB (Haj-Salem et al., 2022). Internal factors in this SLR are perceived behavioural control, environmental attitude, personal norms, altruistic values, and brand image.

A.1 Perceived behavioural control:

Perceived behavioural control refers to the consumers' perceptions of having control over expected consumption (Haj-Salem et al., 2022). Y. Zhang et al. (2018) highlighted that consumers with reasonable control over their behaviour are likelier to have positive emotions. However, consumers with low perceived behavioural control are believed to experience negative emotions (Hoek et al., 2017). Therefore, this SLR identifies perceived behavioural control as a predictor of positive and negative emotions.

A.2 Environmental values:

Environmental values are defined as consumers' inclination to consider the environmental consequences of their purchasing and consumption actions (Ahn and Kwon, 2020). In this SLR, we have combined egoistic, altruistic, and biospheric values, as all demonstrate the consumers' perceived values of their action to save the environment (Han et al., 2017). Philanthropic and self-directed values lead consumers to behave ethically for the environment's welfare (Lavuri, 2022), which in turn leads to emotions. For example, consumers' engagement with society to save the environment tends to develop emotions (Kim and Koo, 2020).

A.3 Environmental responsibility:

Environmental responsibility refers to the moral duty of consumers to reduce pollution and mitigate environmental impacts (Wang et al., 2021). This SLR has merged the ascription of responsibility and environmental responsibility because both are internal, cognitive, and demonstrate a responsibility to save the environment (Zhao et al., 2020). Environmental responsibility is a cognitive factor that may lead to positive and negative emotions based on

the event (Han et al., 2017). For instance, Qiu et al. (2023) argued that when consumers are aware that irresponsible behaviour has a negative impact on the environment, they fulfil their responsibility towards the environment, leading them to experience positive emotions (e.g., pride).

A.4 Personal norms:

Personal norms are rules set by consumers based on their internalised values (Moghavvemi et al., 2020). Further, in developing emotions toward the environment, consumers are guided by self-expectations and morality to assess what is wrong or right (Juvan & Dolnicar, 2017). For instance, Zhao et al. (2020) suggested that individuals' personal norms lead to positive or negative emotions. Thus, it can be argued that personal norms result in emotions in the SCB context.

A.5 Brand image:

Brand image significantly differentiates brands based on tangible characteristics such as symbols (Chen, 2010). It is defined in the SCB context as consumers' perception of the brand's association and commitment to the environment (Han et al., 2020). Brand image is an internal factor (Burmann et al., 2008) that influences SCB. For example, Tanford et al. (2020) suggested that brand image is vital in motivating consumers to purchase sustainable products. Further, consumers' perception of brand image results in emotions toward SCB (Septianto & Lee, 2020).

B. External factors:

This is the second category under the antecedents of emotions. External factors exist outside of individuals, such as societal norms and product types, significantly influencing consumers' SCB. This factor includes social norms and product type. A brief explanation is given below:

B.1 Social norms:

Social norms are essential in consumers' SCB (Erul et al., 2020). Social norms de/motivate consumers to consume sustainable products (Hoek et al., 2017). For instance, if a society is environmentally friendly, consumers who belong to that society are more likely to exhibit sustainable consumption due to social norms (Haj-Salem et al., 2022). Further, SCB-favoured social norms are believed to develop emotions, i.e., can be negative or positive, which in turn leads to SCB.

B.2 Product type:

Product is a mode to satisfy consumers' demands (Amatulli et al., 2019). Product type is considered one of the significant determinants of emotions and SCB (Lu & Kwan, 2023; Tezer & Bodur, 2020). For example, Spielmann (2021) found that product type significantly affects consumers' emotions. Therefore, this study argues that product type can develop positive or negative emotions among consumers.

2.3.6.2 Mediators:

Existing literature on emotions in SCB highlights those emotions, i.e., positive and negative, which are the intermediatory factors between SCB and its antecedents. Emotions significantly influence SCB (Haj-Salem et al., 2022; Liang & Guo, 2021). Sustainable product marketers are more interested in attracting and retaining new consumers by generating emotions (Spielmann, 2021). Amatulli et al. (2019) suggested that emotion generation in consumers depends on the type of messages provided to them. If provided with a positive message, they are more likely to experience positive emotions, leading them to perform positive behaviour. However, if the message is negative, consumers may experience negative emotions and exhibit avoidance behaviour. Thus, emotions are an intermediatory factor in explaining the relationship between SCB and its antecedents.

Scholars have categorised emotions as positive (Han et al., 2017; Spielmann, 2021) or negative (Amatulli et al., 2019; Haj-Salem et al., 2022). Further, researchers have focused on positive emotions in the form of pride (Rowe et al., 2019), passion (He et al., 2022), love (Wu & Cheng, 2019), and pleasure (Moon et al., 2016). At the same time, researchers have studied negative emotions such as guilt (Sharma, 2021), disgust (Septianto & Lee, 2020), fear (Lu & Kwan, 2023), and shame (Amatulli et al., 2019). However, the current study categorises emotions as positive and negative by clubbing them based on their nature. The following is a brief overview of emotions (i.e., positive and negative):

A. Positive emotions:

Positive emotions include pride, passion, and love, facilitating the target behaviour, such as SCB (Adams et al., 2020). According to Han et al. (2018), consumers' values generate positive emotions, increasing the chance of sustainable behaviour. Further, Spielmann (2021) indicated that the availability of sustainable products creates positive emotions, resulting in the purchase intention of sustainable products. Therefore, marketers can use internal or external factors to generate positive emotions among consumers and increase the SCB.

B. Negative emotions:

Negative emotions include guilt, shame, and fear, which may or may not lead to actual behaviour such as SCB (Rowe et al., 2019). For example, a negative message about a brand offering sustainable products can make consumers feel disgusted or ashamed to consume such products (Septianto & Lee, 2020). However, negative emotions do not always encourage consumers to avoid sustainable products. For example, Jiang et al. (2020) found that consumers who experience guilt because of social norms tend to exhibit low-carbon consumption. Similarly, Theotokis and Manganari (2015) found that consumers anticipate the feeling of guilt of harming the environment when they opt-out of participating in a towel reuse programme,

leading them to adopt green services. Therefore, negative emotions can be a behaviour facilitator or inhibitor, depending on the nature of emotions.

2.3.6.3 Moderators:

Existing research on emotions in SCB suggests that environmental concern and culture moderate the relationship of SCB with emotions (Amatulli et al., 2019; van Tonder et al., 2020). These moderators are briefly discussed below:

A. Environmental concern:

Researchers such as Dhir et al. (2021) and Yadav and Pathak (2016) argued that gauging consumers' consciousness of environmental issues is essential to understanding any country's environmentally sustainable movement. It is an important motivator that drives consumer behaviour in a sustainable consumption context (Dhir et al., 2021). Hence, consumers with great concern for the environment are likelier to exhibit SCB. On the contrary, consumers with a low level of environmental concern tend to care for self-attitude, which may lead them not to perform SCB (Amatulli et al., 2019). Further, existing literature suggests that environmental concern can significantly moderate the influence of consumers' emotions on SCB (Haj-Salem et al., 2022). Therefore, this SLR suggests that environmental concern can moderate the association of consumers' emotions with behavioural outcomes, i.e., behavioural intention, actual behaviour, and willingness to pay more.

B. Culture:

Culture consists of societal stakeholders, wherein consumers interact socially with other stakeholders, such as marketers, through language to exchange values within a set of society norms. Further, researchers have defined culture based on consumers' individualism and collectivism traits, a significant way to differentiate between cultures (Juvan & Dolnicar, 2017). Individualistic consumers focus on their needs and values, while collectivistic

consumers are high on social behaviour, such as helping elderly consumers select a suitable product (Sharma & Paço, 2021). This has been frequently studied in the eco-friendly marketing domain. Further, according to van Tonder et al. (2020), consumers' emotions significantly influence their actual behaviour in the SCB domain, moderated by culture. Therefore, it can be interpreted that consumers with high individualistic characteristics tend to be less environmentally sustainable than consumers with a collectivistic orientation. Thus, this SLR argues that culture (individualistic versus collectivistic) can moderate the association of emotions with behavioural outcomes.

2.3.6.4 The outcome of emotions:

Literature on emotions in SCB suggests that behavioural outcome is a widely studied dependent variable. Therefore, this study considers behavioural intention, actual behaviour, and consumers' willingness as behavioural outcomes. These factors are discussed below:

A Behavioural outcome:

A.1 Behavioural intention:

The extant literature on emotion in SCB suggests that behavioural intention is the most frequently studied dependent variable (Bahja & Hancer, 2021; Han et al., 2020). Behavioural intention explains consumers' will to perform a specific task in a given domain (Burhanuddin et al., 2021). According to Haj-Salem et al. (2022), both emotions, i.e., positive and negative emotions, increase consumers' intention toward sustainable products. However, Amatulli et al. (2019) suggested that emotions such as anger, fear, sadness, and hate do not motivate consumers to prefer sustainable products; therefore, they are more likely to reduce the behavioural intention strength.

A.2 Environmental attitude:

Environmental attitude is a cognitive assessment regarding the significance or worthiness of environmental conservation; therefore, understanding environmental attitudes helps predict future SCB. Considering the significance of emotions in SCB and the decision-making process, we posit that emotions should be considered to understand the development of attitude and intention. The existing literature reflects that emotional states significantly impact consumers' attitudes and intention development (Jabeen et al., 2023; Lavuri et al., 2023b). For instance, Chao and Yu (2023) argued that consumers' emotions develop favourable or unfavourable attitudes based on the nature of the emotions. If consumers experience positive emotions at the pre-consumption stage, they are more likely to have positive and strong attitude (Haj-Salem et al., 2022). Therefore, we interpret environmental attitudes from this SLR as the significant outcome of positive and negative emotions.

A.3 Actual behaviour:

Extant literature suggests that actual behaviour is the second most studied consequent factor of emotion in the SCB domain (Jacobs & McConnell, 2022; Wang et al., 2021). Actual behaviour is an act to achieve the target, such as SCB (Bergquist et al., 2020). The literature reflects that actual behaviour results from emotions (Adams et al., 2020; Spielmann, 2021). For example, Dong et al. (2020) found that a love for nature is significantly related to green purchasing.

A.3 Consumer willingness:

Consumer willingness in the SCB domain refers to the acceptance of sustainable products at a given price and product characteristics (Lu & Kwan, 2023). Researchers in the SCB domain suggest that consumer willingness results from emotions (Blose et al., 2015; Han et al., 2017). For example, Ye et al. (2022) highlighted that emotions significantly influence consumer willingness, i.e., consumers' willingness to participate in improving environmental quality.

2.3.7 Integration of frequently discussed variables:

This SLR conceptualised a framework based on frequently studied variables to demonstrate the antecedents and consequences of emotion in the SCB domain.

The constructs on the left side of emotions are antecedents (see Figure 2.5). This SLR has divided antecedents into two parts, i.e., internal factors (perceived behavioural control, environmental attitude, altruistic value, personal norms, and brand image) and external factors (social norms and product type). These constructs significantly affect consumers' emotions. The current study also considers emotions (positive and negative) as a mediator, leading to behavioural outcomes (behavioural intention, actual behaviour, and consumer willingness). Therefore, consumers with positive emotions are likelier to exhibit positive behavioural outcomes, while consumers with high negative emotions like shame are less likely to engage in such behaviour. However, the guilt (negative emotions) of not contributing to the environment can lead consumers to a positive behavioural outcome. Environmental concerns and culture moderate the relationship between emotions and their consequences.

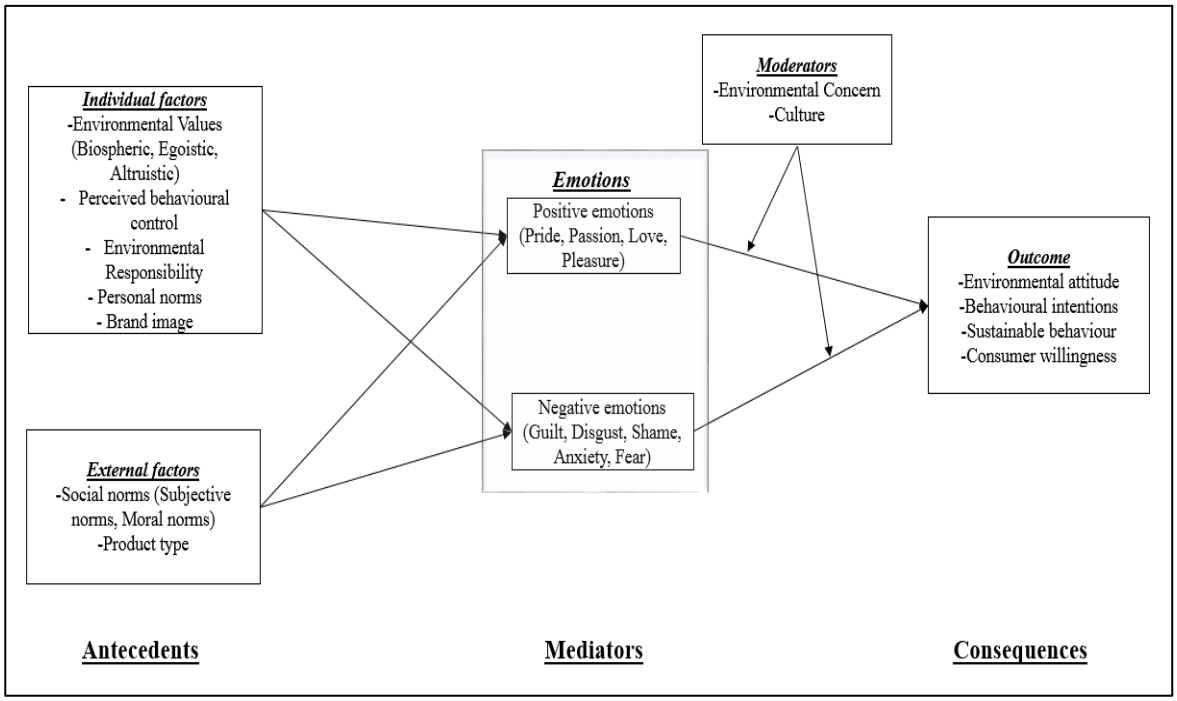


Figure 2. 5: Conceptual model

2.3.8 Methodology

This SLR, in line with Adil et al. (2022) and Jebarajakirthy et al. (2021), has considered the data collection method as a primary source to analyse the methodology used in the research domain. Table 2.7 shows the methodology's synthesis utilising the data collection method approach. The results show that scholars have used five approaches, i.e., experiment, survey, qualitative, mixed methods, and literature review, to study SCB. Table 2.7 demonstrates that most studies adopted experimental (42 studies) or survey-based (72 studies) research designs, while only four preferred qualitative research designs. Further, ten studies were found based on mixed method research design to understand the role of emotion in SCB.

Table 2.7 demonstrates that researchers have used online, offline, and both platforms to collect the data for all the research designs, i.e., experimental, survey, qualitative, and mixed methods. The result shows that online platforms were collected by researchers who used experimental research design (28 online and 13 offline) to collect the data. Further, researchers who conducted survey-based studies pursued to collect data online (41 studies) and offline (30 studies). The mixed method entailed eight offline studies and two online studies. Comparatively, researchers preferred the online method (73 studies) to collect emotional data in SCB literature.

In terms of the type of respondents, this SLR identifies data collected from consumers, tourists, and general respondents. Table 2.7 reflects that consumers were approached online (50 studies) and offline (26 studies) for data collection, while researchers used tourists as respondents in 21 offline and 16 online data collections. Further, general respondents were used in six online and seven offline data collections. Overall, approximately 48% of studies have used consumers as respondents for offline data collection methods, and this may be due to the ease of access within the local marketplace or retail store.

Table 2.7: Data collection methods

Data Collection Methods	No. of Studies	Sample Type		
		Consumers	**Tourist**	**Others**
Experiment				
Online	28	Amatulli *et al.* (2019); Antonetti and Maklan (2014a); Antonetti and Maklan (2014b); Fazal-e-Hasan et al. (2025); Grappi et al. (2024); Jiang et al. (2024); Kapoor *et al.* (2023); Lagomarsino and Lemarié (2024); Lu and Kwan (2023); Nallaperuma *et al.* (2022); Rowe *et al.* (2019); Septianto and Kemper (2021); Septianto and Lee (2020); Septianto *et al.* (2021); Shimul and Cheah (2023); Soesilo *et al.* (2021); Spielmann (2021); Tezer and Bodur (2020); Yan *et al.* (2023); Yang *et al.* (2015); Zhang *et al.* (2023)	Fazal-e-Hasan et al. (2024); Tanford *et al.* (2020)	Adams *et al.* (2020); Hurst and Sintov (2022); Jacobs and McConnell (2022); Lacasse (2016); Truelove and Nugent (2020)
Offline	13	Bergquist *et al.* (2020); Chang (2012); Chen (2016); Hartmann *et al.* (2016); Theotokis and Manganari (2015); Wang *et al.* (2022); Xie *et al.* (2015)	Blose *et al.* (2015); Moon *et al.* (2016);	Bissing-Olson *et al.* (2016); Graton *et al.* (2016); Tarditi *et al.* (2020); Wang et al. (2022)
Online + Offline	1	Souto Maior *et al.* (2022)		
Survey-based				
Online	41	Bhattacharyya *et al.* (2023); Bläse *et al.* (2023); Chang et al. (2024); Chao and Yu (2023); Chen et al. (2024); Chou *et al.* (2023); Cowan and Kinley (2014); Culiberg *et al.* (2023); Fazal-e-Hasan et al. (2025); Flores and Jansson (2022); Haj-	Ahn and Kwon (2020); Akhshik *et al.* (2021); Bahja and Hancer (2021); Barber (2014); Barber and Deale (2014); Chen and Pang (2023); Fazal-e-Hasan et al. (2024); Han *et al.* (2017); Han and Hyun (2018); Han *et al.*	Jiang *et al.* (2020)

		Salem *et al.* (2022); Kadic-Maglajlic *et al.* (2019); Kautish et al. (2023); Khalek and Chakraborty (2023); Kumar *et al.* (2021); Liang and Lim (2021); Maduku (2024); Matthes and Wonneberger (2014) Leisen Pollack (2021); McCarthy and Liu (2017); Rezvani *et al.* (2018); Sharma and Paço (2021); Sreen *et al.* (2021); Talwar, *et al.* (2021); Talwar *et al.* (2022); Utkarsh and Kumar (2023);Yang *et al.* (2023)	(2018); Juvan and Dolnicar (2017); Liu *et al.* (2022); Mkono and Hughes (2020)	
Offline	30	Burhanudin *et al.* (2021); Chen et al. (2024); Dong *et al.* (2018); Dong *et al.* (2020); Jabeen et al. (2023); Lavuri (2022); Lavuri *et al.* (2023a); Lavuri et al. (2023b); Mishra et al. (2024); Moghavvemi *et al.* (2020); Papista and Dimitriadis (2019); Wang and Wu (2016); Wu and Cheng (2019); Ye *et al.* (2022)	Carrus *et al.* (2008); Erul *et al.* (2020); Han *et al.* (2018); Hu and Dang-Van (2023); Kim and Koo (2020); Kim *et al.* (2013); Meng and Han (2016); Qiu *et al.* (2022); Raza *et al.* (2023); Su *et al.* (2017); Tran et al. (2024); Wang *et al.* (2023); Zhang and Wang (2019); Zhao et al. (2023); Zhao *et al.* (2020)	Tapia-Fonllem *et al.* (2013)
Online + Offline	1	van Tonder *et al.* (2020)		
Qualitative				
Online	2	Nascimento and Loureiro (2024); Hoek *et al.* (2017)		
Offline	2	Sahakian *et al.* (2020); Sirieix *et al.* (2017)		
Mixed Method				
Online	2		Meng *et al.* (2022); Sukhu *et al.* (2019)	
Offline	8	Elgaaied (2012); Lockie *et al.* (2004)	Han *et al.* (2020); He *et al.* (2022); Mishra and Gupta (2019); Zheng *et al.* (2020)	Elgaaied (2012); Lockie *et al.* (2004)

2.4 Research Gaps

This SLR is in line with Adil et al. (2022), Jebarajakirthy et al. (2021), and Paul and Criado (2020), has adopted the TCCM approach. With the help of TCCM, this section identifies research gaps (see Table 2.8) in the literature on emotions in SCB and proposes future research directions. These research gaps and future research directions are briefly discussed below:

Table 2. 8: Future research direction

Topics	Major themes/gaps identified	Future research questions
Theory		
Theory development	Beyond the theory of planned behaviour, multiple theories' perspectives need to be explored.	What are the different consumer behaviour theories that can be combined to explain the role of emotion in SCB? Which theories are more parsimonious in explaining the role of emotion in SCB? How can fundamental consumer behaviour theories be extended to explain actual behaviour in the presence of emotion?
Context		
Geographical Diversification	Need for more cross-cultural studies.	How does a comparative analysis of two cultures help understand consumers' emotions and SCB? How should marketers implement strategies to generate positive emotions in developed versus developing nations?
Industry focus	Need for cross-industry studies.	How do consumers' emotions influence their SCB at home and destination retail stores? How do sustainable products' emotional and functional characteristics influence consumers' SCB at home versus destination?
Characteristics		
	Need to explore new dimensions.	How does consumer hope (trait and state) influence consumers' SCB? In what ways do consumers' perceptions of greenwashing

		and risk factors associated with sustainable products predict emotions and SCB?
	Major stimuli generators.	How do consumers' environmental knowledge and perception of green self-identity and natural content stimulate or generate positive emotions to increase the SCB?
Methods		
	Need for mixed-method and experimental research using conditions.	Does mixed-method research enhance our understanding of emotions in SCB? Does condition-based experiment research enhance our understanding of emotions in SCB?
	Data collection from different platforms	Does the online and offline data collection method gauge emotions in SCB? Does big data gauge broader emotions in SCB? Does netnography gauge more comprehensive emotions in SCB?

2.4.1 Theory development

This SLR identifies that literature on emotion in SCB is primarily based on the theory of planned behaviour, norm-activation theory, value-belief-norm theory, and stimulus-organism-response. This reflects that existing literature on emotions in SCB has rarely used other behavioural theories, which can be used for future research directions. While theories like the theory of planned behaviour and other theories focus on cognitive and behavioural mechanisms (attitude, perceived behavioural control, and intentions), studies have not focused on the theories based on emotions in SCB. Although theories such as the two-factor theory of emotions, the broaden-and-build theory of positive emotions, and the affect theory of social exchange have been widely used in psychology (Bolock *et al.*, 2021; Lawler *et al.*, 2008) and consumer behaviour (Chouk & Mani, 2019; Talwar *et al.*, 2021a). Despite using anticipated and experiential emotions, SCB literature has not employed the Two-factor theory of emotions and the affect theory of social exchange, while the broaden-and-build theory of positive

emotions has been employed in only one study. As such, this SLR proposes three different theories which can provide a better theoretical framework to understand the role of emotions in explaining SCB because of emotions and previous consumption experience: the two-factor theory of emotions, the broaden-and-build theory of positive emotions, and the affect theory of social exchange.

Conceptualised by Schachter and Singer (1962), the two-factor theory of emotions demonstrates an interaction of arousal with cognition in a given circumstance, leading to the development of emotions. Scholars such as Andoh *et al.* (2023) and Wong *et al.* (2023a, b) argued that the two-step mechanism of emotion development is not solely based on physiological arousal but also requires a cognitive assessment of environmental cues. The first factor is physiological arousal, based on a physiological assessment of the event, such as increased heartbeat. The second is cognitive, which involves recognising the reason for the emotional arousal, leading to emotional labelling (i.e., positive or negative). Although the two-factor theory of emotions has primarily been applied in employees related research (Andoh *et al.*, 2023), this SLR argues that it may also help future researchers better understand the role of emotions in SCB by explaining its arousal and cognition factors.

The next theory is Fredrickson's broaden-and-build theory of positive emotions to explain the positive emotions' outcome. This theory suggests that consumers experience positive emotions, such as hope, which motivates them to perform positive behaviour, such as repurchase behaviour (Fazal-e-Hasan et al., 2019). The route of positive emotions to actual behaviour involves psychological mechanisms, which generate novel thoughts among consumers, such as performing eco-friendly behaviour (Fazal- e- Hasan et al., 2023). Therefore, this SLR argues that the broad-and-build theory of positive emotions stimulates consumers to exhibit SCB.

Moreover, Lawler (2001) put forward the affect theory of social exchange. This theory explains the relationship between the social exchange environment and individuals' emotions to explain the development of emotions in consumers (Fazal- e- Hasan et al., 2023). The theory explains social exchange as an action performed by two or more consumers (actors), wherein each actor offers some value to the other. Social exchange is essential because a consumer may not achieve the benefit alone by performing an implicit or explicit action (Maruyama et al., 2019). The affect theory of social exchange argues that when the exchange between two or more actors is successful, actors are more likely to experience a positive emotion.

The current SLR argues that the above-discussed theories can be a better theoretical framework for understanding the role of emotions in explaining SCB because of emotions and previous consumption experience.

2.4.2 Context

This SLR's findings demonstrate that the studies on emotions in SCB were conducted in 25 countries with a significant focus on four countries, i.e., the US (28.46%), China (23.02%), India (8.94%), and Australia (6.5%). Hence, most of the findings (approximately 67%) are derived from the studies conducted in these four countries. It is suggested that future scholars conduct studies on emotion in SCB in different cultures, comparing how positive and negative emotions influence SCB across cultures. Furthermore, this SLR identifies empirical research on emotions in SCB focused on marketing, tourism, hospitality, and transportation. Therefore, a multi-group analysis is proposed to investigate the role of emotions in SCB by comparing two different contexts, marketing and tourism. Comparative analysis of SCB at home and destination may offer significant implications for managers and policy-makers in drafting appropriate strategies to motivate consumers for SCB.

2.4.3 Characteristics

Characteristics related to future research avenues are briefly discussed below:

2.4.3.1 Consumer hope:

Existing literature on emotions in SCB suggests that scholars have majorly focused on pride as a positive emotion (Antonetti & Maklan, 2014b), while a few considered passion (He et al., 2022), happiness (Tapia-Fonllem et al., 2013), love (Kumar et al., 2021), and gratitude (Liang & Guo, 2021) as a positive emotion. However, as a positive emotion, consumer hope has not received attention from academicians in this research domain. Hope can be a better candidate for predicting SCB for three reasons. First, hope comprises will and pathways to consume a product, while desire, a central idea of the goal-directed behaviour model, focuses on the will to consume in SCB literature (Snyder et al., 1991; Song et al., 2012). Second, hope is a future -oriented construct that drives consumers to exhibit specific behaviour to achieve their goals (Bapat & Khandelwal, 2023). Third, hope is considered one of the best coping strategies as it motivates consumers to believe that the outcome of the behaviour will be positive (Muyan-Yılık & Demir, 2020). These characteristics are not found in other positive emotions such as pride, passion, and gratitude. Consumer hope significantly influences consumption (Fazal-e-Hasan et al., 2019). Generating hope among consumers might help marketers convert consumers' intentions into actual behaviour. Therefore, investigating the role of consumer hope as a positive emotion in SCB is crucial as it may better explain the conversion of cognitive and behavioural factors into actual consumption behaviour.

2.4.3.2 Perceived greenwashing:

With the gradual increase in demand for sustainable products, some organisations start unethical practices such as false claims or labelling of their products to meet the demand (Neureiter & Matthes, 2023). Consequently, consumers gradually become sceptical,

significantly affecting the sustainable product market (Szabo & Webster, 2021). Considering the increase in unethical practices and consumer scepticism toward sustainable products, there is a lack of research on how perceived greenwashing influences consumers' purchase process of consuming sustainable products. Existing research on emotions in SCB has not focused on the influence of perceived greenwashing fear on consumers' emotions and SCB. Thus, gauging the perception of greenwashing fear can help mitigate its negative impact on generating positive emotions and consumers' purchase process.

2.4.3.3 Dispositional traits:

Dispositional traits such as optimism and pessimism are essential factors in the SCB decision-making process. Since optimism significantly motivates consumers to adopt products for the environment's welfare, pessimism demotivates consumers to do so (Sadiq et al., 2020). Further, scholars such as Barreiro and Treglown (2020) and Fragkaki et al. (2021) suggested that optimism is positively associated with happiness (a positive emotion) and negatively associated with anxiety (a negative emotion). Considering a lack of research on dispositional traits with emotions in SCB literature, reflecting needs to understand how dispositional traits interact with emotional components, specifically consumer hope, to motivate consumers in the SCB decision-making process. Therefore, this SLR suggests that future research scholars can examine the role of the above-mentioned dispositional traits with emotions in the SCB decision-making process.

2.4.3.4 Product characteristics:

Psychological factors cannot fully explain SCB; therefore, researchers investigated the role of external factors, such as product characteristics, to explain SCB comprehensively (Park & Lin, 2020). Existing literature on SCB suggests that product characteristics such as eco-label and natural content are significant factors in motivating individuals to consume sustainable

products (Dhir et al., 2021; Tandon et al., 2021). Further, the research suggests that natural content has been largely ignored when studying the development of emotions in SCB. Thus, analysing the influence of natural content would help academicians and marketing practitioners better understand the development of emotions and consumer decision-making processes in the SCB context.

2.4.3.5 Green self-identity:

The literature on emotions in SCB suggests that the role of green self-identity has mainly been ignored in understanding the development of emotions, particularly positive emotions (Juvan & Dolnicar, 2017). It is essential to motivate consumers to prefer SCB (Confente et al., 2020). Consumers strive to maintain their identity with societal norms (Talwar, Jabeen, et al., 2021). Therefore, Khare and Pandey (2017) argued that consumers prefer SCB to match their identity with society's environmental norms. Further, Souto Maior et al. (2022) conclude that green self-identity is linked with altruistic concerns, affecting consumers' pride. Thus, this SLR suggests that studying the role of green self-identity in developing positive emotions would help future research better understand the SCB phenomenon.

2.4.3.6 Green perceived risk:

Perception of risk associated with sustainable product consumption is gaining popularity because of growing confusion among consumers about the authenticity of such products (Chen & Chang, 2013). Product risk leads consumers to exhibit avoidance behaviour (Lin et al., 2017). Research on emotion and perceived risk reflects that consumers who perceive risk while buying products online tend to experience negative emotions, such as fear (Kim et al., 2013). However, the literature on emotions in SCB reflects the lack of focus on the role of green perceived risk in developing emotions (i.e., positive or negative) toward sustainable products.

Thus, green perceived risk's role in the development of emotions in SCB is required to offer some solutions to reduce it.

2.4.4 Methodology

After reviewing the literature on emotions in SCB, this SLR suggests several directions from the methodological perspectives for future scholars in the domain. First, the current SLR identifies that researchers have mainly used a quantitative approach to study emotions in SCB. Of 116 studies, 103 were based on quantitative research methods, while only three adopted a qualitative approach. As qualitative research involves exploratory research design, it may offer in-depth insights into a phenomenon (Liamputtong, 2020). Though research on emotions in SCB has been conducted for the last 20 years, there are still several unexplored research areas, such as the role of consumer personality on the development of emotions and the role of social media influencers in generating emotions and motivating consumers to perform SCB. Future scholars can conduct a qualitative study to examine the role of consumers' personality traits and social media influencers in motivating consumers to adopt SCB. They can suggest emotion-related strategies to attract consumers toward sustainable products.

Second, the current SLR observed that most researchers had ignored the longitudinal research design. This research design helps academicians understand consumer behaviour as it changes with time. Furthermore, this research design offers valid results for data collected simultaneously. Hence, future scholars may use longitudinal research design to understand better the change in attitude, emotions, and actual behaviour.

Third, this SLR reflects that many scholars have undertaken causality-based experimental research to study the role of emotions in SCB. At the same time, condition-based experiments are largely ignored in the domain. However, condition-based experiments offer more reliable and valid conclusions to understand better the emotional development of SCB

(Lange & Dewitte, 2021). Further, emotions change with situations (Goenka & Van Osselaer, 2019). Therefore, this study suggests that future research should consider a condition-based experimental method to gauge broader emotions under different SCB conditions.

Fourth, the current study identifies that many researchers (e.g., Jabeen et al., 2023; Kumar et al., 2021) have adopted structural equation modelling to analyse the SCB model. At the same time, few scholars (e.g., Bhattacharyya et al., 2023; Koplin & Rosch, 2021) have applied fsQCA to understand SCB decision-making processes better. However, the hybrid of SEM and fsQCA approach offers more conclusive patterns in the data to understand the dependent variable (Dogra et al., 2023). Further, interaction with different factors generates different emotions (Septianto, Tjiptono, & Kusumasondjaja, 2020). Therefore, this research suggests that future studies adopt SEM and fsQCA hybrid analytical approaches to understand better the factors leading to emotions in the SCB domain.

Last, literature on consumer behaviour suggests a significant increase in analysing the decision-making process using consumer reviews and data analytics methods. Consumers often share their consumption experiences on platforms like Instagram and Twitter (Sindhu & Bharti, 2023). On the contrary, this SLR observed that researchers have largely ignored this methodology when studying the role of emotions in SCB. Therefore, future studies are suggested to adopt data analytic methodology to analyse the online data (in the form of consumer reviews) on emotions and SCB. This methodology may provide more generalisable findings on emotions in SCB as the extensive database has no geographical limitations.

2.5 Conclusion

This study identified 123 empirical research papers published on emotions in the SCB domain in the last 21 years. This study synthesised literature to achieve three research objectives. First, this SLR identified that the number of publications increased in recent years (i.e., 2019-2023).

Further, this systematic review observed that most studies had been published in seven journals. Therefore, the current study suggests that other journals bring special issues to help the domain grow. This study also analysed the literature regarding theory, context, and methodology to achieve the first research objectives. The result reflected that the researcher employed 48 theories to study the role of emotions in SCB. Of 123 studies, approximately 36% have used either the theory of planned behaviour, norm-activation theory, value-belief-norm theory, or stimulus-organism-response. In addition, this study identified that the US was the primary focus of the researchers on understanding SCB. Thus, the current study calls for further research to examine the role of emotions in SCB in developing countries.

Further, most studies collected online data, focusing on consumers as respondents. Therefore, future researchers should explore new methodologies, such as big data analytics using consumer reviews. Thus, the first research objective reflected that this research domain is over-dependent on the theory of planned behaviour, which significantly focuses on attitude, subjective norms, and perceived behavioural control.

The second research objective sought to conceptualise a research model on emotion in SCB literature. To achieve this objective, this study conceptualised a research model using widely used factors in section 2.3.6. This SLR categorised antecedents of emotions in three themes, i.e., internal factors (perceived behavioural control, environmental responsibility, environmental values, personal norms, and brand image) and external factors (social norms and product type). Extant literature suggests that these antecedents significantly influence mediators, i.e., positive and negative emotions, which result in behavioural outcomes (environmental attitude, behavioural intention, actual behaviour, and consumer willingness). Further, environmental concern and culture can moderate the relationship between emotions and behavioural outcomes in SCB research domain.

The final research objective sought to identify gaps and propose future research directions for researchers in the domain. This study adopted a TCCM framework to identify the research gaps. Further, based on research gaps, the current SLR suggests several future research gaps in theory, context, characteristics, and methodology in section 2.4. In the next chapter, this study discusses the underpinning theories and research model development.

Chapter 3: Antecedents and Consequence of Consumer Hope for Sustainable Consumption

3.1 Introduction

Recently, consumer behaviour has had a tremendous impact on the environment, leading to environmental degradation and confrontation with consumption patterns (White et al., 2019). In response, manufacturers and policymakers disseminate environmental awareness among consumers (Yadav et al., 2019). This increase in environmental awareness leads to SCB globally (Yuan et al., 2022). For instance, approximately 70% of the consumers who responded to the survey on sustainable consumption exhibited their intentions to pay more for sustainable products (Feber et al., 2020). Similarly, in 2022, 36% and 25% of Australian consumers preferred sustainable products in the household cleaning and beauty retail sectors, respectively (Statista, 2023b). At the same time, the consumption of sustainable products is still low (White et al., 2019). This low rate is evident from the global sale of sustainable products, contributing to less than 10% of total retail sale value (Guyader et al., 2017). Despite consumers' increased preferences, this slow consumption requires a better understanding of the antecedents to SCB. This gap between consumer preference and consumption motivates scholars to understand better the development of psychological mechanisms and their translation into actual SCB (McNeill & Moore, 2015). Researchers such as Dhir, Talwar, et al. (2021) and Hamzah and Tanwir (2021) argued that attitude and perceived behavioural control are the reasons for low consumption of sustainable products, while Haj-Salem et al. (2022) suggested that emotions also play an essential role in facilitating and inhibiting the preferences for SCB. In addition, marketers often foster negative emotions among consumers to facilitate their preferences for sustainable products (Jiang et al., 2020). However, the experience of negative emotions

gradually fades away, leading consumers to avoid sustainable products (Septianto & Lee, 2020). At the same time, the experience of positive emotions stays with consumers for a long time, which motivates them to perform SCB (Spielmann, 2021). This motivation is because of positive emotions that strengthen consumers' positive perceptions (Muhammad et al., 2020). Therefore, in line with the suggestions of Chapter 2, this study focuses on consumer hope (a positive emotion) to better explain the SCB.

Furthermore, consumers behave differently at home than when travelling because their behaviour is governed by different economic, psychological and sociological factors (Holmes et al., 2021). For instance, consumers from the high-income class who contribute towards saving the earth are more likely to prefer sustainable products at their destination compared to those who belong to a weak economic-socio group (Maltese & Zamparini, 2023). In addition, consumers are more inclined to purchase sustainable products when they are at their home because of social contextual factors (e.g., social norms and moral obligation) (Miller, Merrilees, & Coghlan, 2015), while consumers' moral obligation is low at the destination, resulting in low SCB. Miller et al. (2015) argued that consumers' motivation for travelling is a significant factor in SCB at the destination. For example, if consumers are motivated to visit an ecotourism site, they are highly likely to perform sustainable behaviour, while they tend to engage less in sustainable behaviour if their motivation for travelling is to gain materialistic values. Therefore, in line with the suggestions of Chapter 2, the study intends to compare consumers' orientation towards SCB while travelling and at home.

This study sets the objectives based on the previous chapter (i.e., SLR) to address this gap. The objectives are fivefold:

1) To investigate the role of emotions in SCB, this study considers consumer hope as an intermediatory factor to explain the translation mechanism of cognitive factors into SCB.
2) This study aligns with the SLR's suggestion and intends to test the role of cognitive facilitators (i.e., green self-identity and perceived natural content) and cognitive inhibitors (i.e., perceived greenwashing) in positive emotion development.
3) To gauge the varying influence of cognitive factors on positive emotions, precisely consumer hope, this study bifurcates the consumer segments based on environmental knowledge (high versus low).
4) To capture the varying influence of consumer hope on SCB. This study defines consumer segments as consumer goal attainment (high versus low).
5) The last objective is to compare how sustainable consumers are at home versus travelling.

To achieve these research objectives, this study employs the affect theory of social exchange (Lawler, 2001) and the broaden-and-build theory (Fredrickson, 2004). Specifically, the affect theory of social exchange is employed to connect facilitators, such as green self-identity and perceived natural content, and inhibitors, such as perceived greenwashing, with consumer hope — a positive emotion. In addition, the broaden-and-build theory is applied to connect positive emotions, specifically consumer hope, with SCB.

This chapter is structured as follows: the introduction, followed by sections 3.2 and 3.3, which discuss the literature on SCB and positive emotion, respectively. Section 3.4 discusses consumer hope, Section 3.4 discusses the underpinning theories, and the development of hypotheses is shown in Section 3.5. Followed by model development is discussed in section 3.6. Finally, section 3.7 concludes this chapter.

3.2 Sustainable Consumption Behaviour

Environmental ethics has become a topic of much debate globally, with academicians, politicians, customers, organisations, and environmental scientists weighing in (Bharti et al., 2022). The depletion of natural resources and the resulting environmental damage has led to the emergence of sustainable consumption as a critical concept (Yadav & Pathak, 2017). Cheung and To (2019) and Kushwah, Dhir, Sagar, et al. (2019) have argued that the relationship between consumers and the environment is unhealthy, resulting in environmental disasters.

In addition, consumer well-being is impacted significantly by ecological disasters (Ganglmair-Wooliscroft & Wooliscroft, 2016). As a result, government bodies have encouraged marketers and consumers to shift their focus toward environmental safety (Dhir, Talwar, et al., 2021). This reflects environmental welfare's significance during consumption (Tandon, Jabeen, et al., 2021). Further, sustainable consumption can be a better way to improve the environment's condition as it involves consuming products that help improve its condition (Sharma & Jha, 2017).

Previous scholars have focused on environmental sustainability by using different terminology — "sustainable consumption behaviour" (Leary et al., 2014), "pro-environmental consumer behaviour" (Taufique et al., 2017), "pro-environmental consumption behaviour" (Polonsky et al., 2014), "green consumption behaviour" (Rustam et al., 2020), and "pro-environmental behaviour" (Urban et al., 2019). Sadiq (2019, p. 32) defined SCB as "the product's consumption that is beneficial to the environment". Similarly, Roberts (1996, p. 222) defined it as a product's consumption, which minimizes the negative effect on the eco-system. The UNEP explains sustainable consumption as consuming products to improve well-being with minimal pollution (UNEP, 2015). The extant literature observed that consuming

sustainable products benefits environmental welfare as sustainable products are designed to reduce the detrimental environmental impact (Bharti et al., 2022; Kautish et al., 2019).

Researchers from varied fields have increasingly shown interest in understanding the SCB, such as marketing (Ganglmair-Wooliscroft & Wooliscroft, 2022; Grappi et al., 2024; Sharma & Jha, 2017), hospitality and tourism (Yadav et al., 2019), and psychology (Kaida & Kaida, 2019). Scholars have particularly shown interest in understanding the consumers' SCB through internal factors, such as attitudes, values, beliefs, knowledge, and emotions, and external factors, such as subjective norms and product type (Aitken et al., 2020; Jiang et al., 2024; Kautish et al., 2019). Further, researchers argue that increased environmental knowledge among consumers positively impacts their orientation toward consuming sustainable products (Cheung & To, 2019; Yadav & Pathak, 2016), which influences their well-being (Apaolaza et al., 2018). However, a green gap is observed in the literature on sustainable consumption, i.e., consumers' positivity does not often motivate them to consume sustainable products (Tandon et al., 2020). In addition, the extant literature on SCB also highlights that consumers tend to have positive emotions, such as brand love and negative emotions, such as guilt, yet they often do not exhibit SCB (Antonetti & Maklan, 2014b; Fazal-e-Hasan et al., 2025; Kumar et al., 2021). Consequently, the current study argues that emotions do not often translate into actual SCB, a significant problem that needs urgent attention. Furthermore, a review study by Sharma et al. (2022) revealed that consumers need other factors, such as product-related factors and situation factors, that push them to consume sustainable products. Therefore, this research intends to investigate and reduce the emotion-behaviour gap in SCB.

Further, sustainable consumption has been studied as a single, bi-dimensional, or multi-dimensional factor. For example, Taufique et al. (2017) studied pro-environmental consumption with a single factor: actual consumption behaviour. Alzubaidi et al. (2021) considered measuring sustainable behaviour through two factors, i.e., direct and indirect

behaviour. Similarly, Sharma and Jha (2017) studied sustainable consumer behaviour by categorising it into three factors — (i) high sustainable consumer behaviour, (ii) medium sustainable consumer behaviour, and (iii) low sustainable consumer behaviour. Most researchers considered sustainable consumption behaviour a single-factor construct to avoid the complexity of gauging it (Khare, 2015).

3.2.1 Sustainable consumption behaviour: At home versus while travelling

The existing literature commonly identifies three significant dimensions of SCB: internal factors, external factors, and personal characteristics (Paul et al., 2016; Yadav et al., 2019; Dhir et al., 2021a). These factors have been studied in different contexts, such as home (Untaru, Ispas, & Han, 2020), hospitality (Han, Moon, & Hyun, 2020), workplace (Yao, 2024), and tourism (Wang, Wang, Zhang, Jebbouri, & Wong, 2022). Nevertheless, there is a scarcity of research efforts dedicated to studying the impact of these various contexts on influencing SCB (Ganglmair-Wooliscroft & Wooliscroft, 2017; Wu et al., 2021).

Recent studies have argued that consumers' SCB at home may differ from their travel behaviour (Holmes et al., 2021). Studies have compared consumers' SCB between home and staying at the hotel (Untaru et al., 2020) and between home and holiday (Holmes et al., 2021). A recurring observation from these studies is the tendency for consumers to display less SCB while travelling compared to their conduct at home (e.g., Dolnicar & Grun, 2009; Holmes et al., 2021). For instance, Dolnicar and Grün (2009) discovered that most consumers exhibit more SCB when staying at home than when travelling. Similarly, Miao and Wei (2013) observed that consumers' engagement in SCB is less when they are travelling than when they are in a household context. Holmes et al. (2021) examined the connection between consumers' sustainable behaviour at home and while travelling, emphasising the attitude-behaviour gap regarding SCB at home versus travelling contexts. However, existing literature has not delved

into how consumers' emotions based on the SCB model differ in both contexts, i.e., at home versus while travelling. Therefore, to better understand consumers' orientation towards SCB, this study compares their emotions-based SCB model at home and while travelling.

3.3 Positive Emotions

Positive emotions are important factors that influence the consumption behaviour (Wang & Wu, 2016). It has been studied in different domains, including marketing (Haj-Salem et al., 2022), tourism (Sukhu et al., 2019), and psychology (Jacobs & McConnell, 2022). Positive emotions are a subjective state related to favourable outcomes, such as improved mental well-being and increased social connection (Fazal-e-Hasan et al., 2019). It is a state that generates positive feelings such as joy, love, hope, pride, and awe (Wang & Wu, 2016). Existing research highlights that positive emotions have short-lived moments, having long-term effects on consumers' well-being (Fazal-e-Hasan et al., 2019; Han & Hyun, 2018). For example, suppose a brand offers discounts (benefits) to consumers when purchasing their fair-trade products. In that case, consumers are likely to develop positive emotions such as gratitude, which can improve their well-being. Further, positive emotions increase consumer resilience, coping capabilities, and other positive outcomes (S. Talwar, P. Kaur, et al., 2021). For instance, if consumers experience a positive emotion, such as joy, when a retail employee solves their problem in making payment at the self-checkout counter; they are likelier to have a lower stress level.

Further, positive emotions are also considered to improve social relationships (Goodman et al., 2018). Consumers who often experience positive emotions are socially friendly and generous (Lindsay & Creswell, 2019). These emotions can stimulate consumers' relationships with others, improving mental well-being. For instance, consumers who experience positive emotions tend to have high altruistic values and perform pro-environmental behaviour, improving their well-being. The literature demonstrates that caring for others by

exhibiting SCB is vital for consumers' happiness and well-being (Nallaperuma et al., 2022; Tapia-Fonllem et al., 2013).

3.3.1 Positive emotions in sustainable consumption behaviour

Sustainability is gradually becoming an important issue across the world. It can be achieved through sustainable consumption (Ganglmair-Wooliscroft & Wooliscroft, 2022; Sharma & Jha, 2017). Factors including emotions significantly shape consumers' intentions and SCB (Kumar et al., 2021). Negative emotions, including guilt, have been widely studied to understand 'consumers' SCB (Theotokis & Manganari, 2015). However, positive emotions such as pride, passion and gratitude are also effective in increasing SCB, which has been neglected compared to negative emotions (Rowe et al., 2019).

Ahn and Kwon (2020) suggest that positive emotions are more effective than negative emotions in motivating consumers to exhibit SCB. For example, consumers who expect to experience pride in consuming sustainable products tend to exhibit SCB. In contrast, those who anticipate guilt of not consuming sustainable products are less likely to demonstrate SCB (Haj-Salem et al., 2022). Similarly, consumers who experience positive emotions such as joy and pride are likelier to continue SCB than those with a high negative emotion level (Su et al., 2017).

Existing literature on SCB suggests that positive emotions, such as pride, anticipated positive emotions, environmental passion, and love, are frequently studied to understand the phenomenon of SCB while ignoring consumer hope (Han & Hyun, 2018; Liang & Guo, 2021). Hope is strongly correlated with optimism and offers coping capabilities (Genç & Arslan, 2021). Consumers who are high on hope tend to believe that the outcome would be positive and are more likely to exhibit behaviour because of coping capabilities. Further, hope is a future-oriented emotion, which consists of consumers’ will and guides them to achieve their

goals (Snyder et al., 1996). Therefore, the current study focuses on consumer hope as it motivates consumers to develop problem-solving skills and argues that consumer hope can better solve sustainability-related problems. The hope of saving the environment may motivate consumers to continue their SCB.

3.3.2 Consumer hope

Existing literature on consumer psychology suggests that optimism and self-efficacy have been defined as consumers' ability to exhibit a positive behavioural outcome in any situation (Dhir, Talwar, et al., 2021). Similarly, desire and expectations are consumers' will to consume a desirable product (Aitken et al., 2020; Tseng & Hung, 2013). These psychological factors motivate consumers to adopt sustainable products; however, they lack a pathway component (Ko, 2018; Fazal-e-Hasan et al., 2019). Among other mechanisms, consumer hope is the psychological factor that uses both will and action to achieve a target behaviour (Snyder et al., 1996). Hope is a more self-initiated way to perform a goal than optimism and self-efficacy (Feldman & Kubota, 2015; Kelberer et al., 2018). In other words, consumers with an optimistic orientation or high self-efficacy believe they will achieve a positive outcome irrespective of the methods adopted. On the other hand, hopeful consumers believe that they achieve a positive outcome by themselves using the will and pathway components (Feldman & Kubota, 2015).

Consumer hope is a vital psychological factor that consumers frequently experience, influencing consumption behaviour. Snyder et al. (1991) conceptualised consumer hope as consumers' positive expectations in the near future irrespective of situations (i.e., good or bad). Studies, such as Bapat and Khandelwal (2023) and Fazal-e-Hasan et al. (2018), suggested that consumer hope is an emotional construct that motivates (agency component) consumers to achieve the goal (pathway component), i.e., target behaviour.

The development of hope requires setting a goal (MacInnis & De Mello, 2005). Consumers use hope to resolve uncertain conditions (Weber et al., 2021). For instance, financial risk involves consuming sustainable products; therefore, consumers use hope as a coping strategy to perform SCB, while consumers who are low on hope tend to avoid uncertainty or withdraw before achieving the goal (Fazal-e-Hasan et al., 2019).

3.4 Underpinning Theories

3.4.1 Affect theory of social exchange

The affect theory of social exchange was postulated by Lawler (2001), who stated that emotion is generated through social exchange. The theory explains social exchange as an action performed by two or more consumers (actors), wherein each actor offers some value to the other. Social exchange is essential because a consumer may not achieve the benefit alone by performing an implicit or explicit action (Maruyama et al., 2019). The affect theory of social exchange argues that when the exchange between two or more actors is successful, actors are more likely to experience a positive emotion.

Further, social exchange is a joint activity; therefore, the emotional development of each actor depends on how they perceive their share in the exchange (Bapat & Khandelwal, 2023). Therefore, the current research assumes that social exchange between two actors develops hope (a positive emotion) among consumers. Further, this theory helps explain how consumer hope develops when interacting with other actors and leading to SCB. For instance, when consumers interact successfully with natural content information on sustainable products, they develop positive emotions (consumer hope). However, at the same time, when consumers perceive risk in consuming sustainable products, their interaction with sustainable products is expected to be unsuccessful, leading to negative emotions.

3.4.2 Broaden-and-build theory of positive emotions

This theory was postulated by Fredrickson (2004) to explain the significance of positive emotions in consumers' lives. According to Fredrickson (2004), positive emotions broaden the consumers' thought processes and motivate them to engage in positive behaviour. For instance, a positive emotion, such as gratitude, urges consumers to be generous to others, which leads to mental well-being. Furthermore, Dong and Geng (2022) argued that positive emotions encourage consumers to engage with the environment and be actively involved in positive behaviour to create values instead of withdrawing before performing. Further, this theory explicitly states positive emotions' significant role in increasing psychological resources, such as well-being (Saleem et al., 2022).

The current study employs the broaden-and-build theory of positive emotions to study how consumer hope may influence actual behaviour in the SCB domain. Facilitators (green self-identity and perceived natural content) and inhibitors (perceived greenwashing) may motivate/demotivate consumers to experience hope to achieve their goal, such as SCB. Based on this theory, the current research argues that the experience of hope may broaden consumers' momentary thought and build social resources (SCB).

3.5 Hypotheses Development

3.5.1 Green self-identity and consumer hope

Green self-identity is consumers' uniqueness that motivates them toward environmental safety (Talwar, Jabeen, et al., 2021; Zhao et al., 2024). It is based on consumers' motivation to perceive themselves as environmentally friendly while consuming sustainable products (Confente et al., 2020). This concept is a cognitive factor that is a mixture of consumers' self-perception and social norms related to the environment (Barbarossa et al., 2017); therefore, consumers endeavour to adjust their identity according to social norms. For example,

consumers buy a sustainable product to prove they belong to the pro-environmental group. However, consumers may face an identity crisis when they fail to align with social norms (Sharma et al., 2020). Consumers who experience social identity crises join other social groups or adapt to identity crises (Carvalho et al., 2019). Consumers adapt to identity crises because of coping capabilities, such as hope — a positive emotion.

Further, in line with the affect theory of social exchange, this study argues that consumers' interaction with sustainable products can be an appealing experience when they have the will and the pathways to achieve the goal (i.e., hope). Souto Maior et al. (2022) observed that consumers with a strong perception of being green tend to perceive less risk associated with sustainable products, leading to positive emotions. The stimulus in this context is consumers' perception of being green, which motivates them to achieve a set goal of consuming sustainable products and makes them happy. Similarly, Flores and Jansson (2022) found that consumers experience positive emotions when motivated to achieve their social identity. Therefore, this research hypothesises:

H1: Green self-identity positively influences the development of hope for sustainable consumption among consumers.

3.5.2 Perceived natural content and consumer hope

Perceived natural content is consumers' perception of a product whose manufacturing process is free from artificial and genetically modified ingredients (Kareklas et al., 2014). Sustainable product manufacturers must be aware of these perceptions and be able to demonstrate the presence of natural contents in their sustainable products to attract consumers (Singh & Gupta, 2021). The manufacturers of sustainable products provide natural content information on the products in the form of colour, code, packaging, and use certificates (Kumar et al., 2021). In consumer psychology, perceived natural content or naturalness has been studied to predict

actual consumption (Tandon, Jabeen, et al., 2021). Perceived natural content enables consumers to embrace sustainable products by providing the rational to adopt the product over other available products (Hempel & Roosen, 2022).

Consumers' belief in natural content benefits makes them choose sustainable products over conventional products (Tandon et al., 2020). Thus, such consumers tend to perceive products with information of natural content as enhancing their health and environmental benefits. Consequently, they might be able to identify the best pathway to reduce the potential risk and increase their benefits (Parker et al., 2021). The motivation (will) and pathways to achieve are part of hope (Snyder et al., 1996). Therefore, if consumers look for natural content information on products with a perception that it may make them both healthy and environment-friendly, this may lead to experiencing consumer hope. This study's argument aligns with the affect theory of social exchange, arguing that natural content in sustainable products offers health and environment-related values to consumers during a successful social exchange, leading to positive emotions, such as hope. For example, Kumar et al. (2021) found that information on natural content in sustainable products improves consumers' perception, which leads to positive emotions.

Similarly, Liang and Lim (2021) observed that consumers' perception of natural products led them to consume sustainable products because of positive feelings. This study also believes that the availability of natural content information on sustainable products is more likely to motivate consumers and guide them to achieve their goals. Therefore, this research hypothesises:

H2: Perceived natural content positively influences the development of hope for sustainable consumption among consumers.

3.5.3 Perceived greenwashing and consumer hope

Perceived greenwashing is defined as consumers' perception of a firm's messages as misleading or scandalous (Ioannou et al., 2022). Consumers with firm environmental beliefs tend to be highly sceptical of the green claims of sustainable product manufacturers (Szabo & Webster, 2021). Misleading information negatively affects consumers' perception of sustainable products (de Freitas Netto et al., 2020). This deceptive information affects consumers' perception to avoid interaction with greenwashed sustainable products (L. Zhang et al., 2018). Interaction with greenwashed sustainable products could be through television advertisements, social media, or messages on roadside hoardings; therefore, consumers are willing to avoid such advertisements because it leads them to experience low positive emotions (Szabo & Webster, 2021). The possible reason for low positive emotions is that consumers' perceived greenwashing blocks their cognitive capability, and they are likely to exhibit withdrawal or switching behaviour (Schmuck et al., 2018).

Further, consumers' perception of greenwashing stimulates them to avoid interaction, which reflects that they are not motivated to consume greenwashed products and avoid developing the pathways to achieve the consumption goal. Therefore, in line with the affect theory of social exchange, this study argues that when consumers interact with greenwashed sustainable products, such interactions are likely to fail and generate low positive emotions, such as hope. Thus, this study posits:

H3: Perceived greenwashing negatively influences the development of hope for sustainable consumption.

3.5.4 Environmental knowledge as a moderator

Environmental knowledge is an awareness of ecological conditions and pressing problems, such as deforestation (Kumar et al., 2017). Environmental knowledge is a vital criterion in

understanding the importance of the environmental sustainability of a country (Sadiq et al., 2021). Previous research has shown that environmental knowledge is a significant factor in driving consumers' consumption of sustainable products (Dhir, Sadiq, et al., 2021; Yadav & Pathak, 2016). Environmental knowledge is essential because it drives consumers' cognitive capabilities and shapes their emotions toward sustainable product consumption (Shimul & Cheah, 2023). Further, research indicates that moderators such as environmental knowledge strengthen the predicting power of independent variables (Hamzah & Tanwir, 2021). Sustainable products often face consumer heterogeneity. Consumers can be easily differentiated based on environmental knowledge (high versus low) in SCB (Kumar et al., 2017). The possible reason is that consumers are highly involved in sustainable product consumption.

While the literature has increasingly focused on the influence of green self-identity on behavioural outcomes (S. Talwar, F. Jabeen, et al., 2021), a better understanding of green self-identity's role in developing consumer hope — a positive emotion in SCB is required. Consumers with a self-perception of having a green identity are likely to set a goal of consuming sustainable products (Khare & Pandey, 2017); however, when consumers fail to achieve the goal, they experience an identity crisis, which may lead to the development of low hope.

Previous studies indicate that environmental knowledge is vital in forming consumers' perceptions (Taufique et al., 2017). Consumers' current state of knowledge can be determined by their familiarity and expertise related to sustainable products and the environment (Yadav & Pathak, 2016). Consumers with high environmental knowledge tend to analyse the situation better by processing the information more efficiently than those with low environmental knowledge (Kumar et al., 2017). This efficient information processing leads to self-confidence among consumers with high environmental knowledge in consuming sustainable products.

Therefore, consumers with high environmental knowledge who experience identity crises are expected to have high hope because they are motivated to consume sustainable products and believe they can achieve their goals. At the same time, consumers with low environmental knowledge are expected to have low motivation to consume sustainable products, therefore experience low confidence in achieving the goal through sustainable products. Consumers with low or no environmental knowledge may not be able to reduce the identity crisis because they consider sustainable products are not much different from conventional products, and as a result, have low motivation to consume sustainable products to achieve consumption goals and uncertainty that consumption may help achieve their goals. In line with the affect theory of social exchange, the successful exchange of knowledge about the environment and sustainable products among consumers who identify as green increases the likelihood of cultivating positive emotions, such as hope for future transactions related to sustainable consumption. Thus, this study posits:

H4: Environmental knowledge positively moderates the relationship of green self-identity with consumer hope.

An important role of consumers' environmental knowledge is identifying information on natural content in sustainable products. When consumers are highly knowledgeable about the environment, they are likely to be more inclined to look for natural content information on sustainable products and tend to experience positive emotions. Furthermore, consumers with high environmental knowledge can process their information on natural content efficiently, which motivates them to achieve their goal of consuming sustainable products. On the other hand, when consumers possess low or no knowledge about the environment and natural content, this creates uncertainty about achieving the goal through sustainable products, which leads them to experience low hope for sustainable consumption and develop confusion as to whether the product's natural content is beneficial for their health. Further, consumers with low

knowledge tend to have low self-confidence in assessing the information of natural content, which demotivates them to identify the pathways to achieve their goals. In line with the affect theory of social exchange, successful exchange of knowledge about the natural content on product packaging among consumers tends to result in higher levels of hope for their goals related to health and wellbeing due to the consumption of naturally contented products. Thus, this study hypothesises:

H5: Environmental knowledge positively moderates the relationship of perceived natural content with consumer hope.

Sustainable product manufacturers use deceptive claims in their advertisements as a form of greenwashing (Szabo & Webster, 2021). Consumers who experience greenwashing are likely to be sceptical towards sustainable products and have low cognitive capabilities in SCB (Fernandes et al., 2020). Researchers suggest that environmental knowledge is an essential moderator in identifying misleading information about sustainable products (Neureiter & Matthes, 2023; Schmuck et al., 2018). In line with the affect theory of social exchange, consumers with high environmental knowledge tend to be motivated and involved in processing the information to make their exchange successful and identify the greenwashed products, leading to lower hope to attain their goal. On the contrary, consumers who have low or no environmental knowledge are likely to have low rational cognition, leading to low involvement in identifying the information related to greenwashed products (Schmuck et al., 2018). These consumers, in uncertain circumstances, often fail to identify greenwashing information and trust in the sincerity of the claims by the organisation. As a result of this trust, they have higher levels of hope for sustainable products and the attainment of associated goals. Thus, this study hypothesises:

H6: Environmental knowledge negatively moderates the relationship of perceived greenwashing with consumer hope.

3.5.5 Consumer hope and sustainable consumption behaviour

Consumer hope is a psychological construct that significantly affects consumption behaviour, and it has been gradually gaining popularity in the marketing literature (Choi et al., 2019; Khalil et al., 2022). Hope is a positive emotion that induces expectations of favourable results and reduces stress (Gallagher et al., 2021). For example, consumers with high hopes are expected to be motivated and find ways to perform positive behaviour, such as SCB. Hope is a future goal-oriented emotion consisting of will and ways to achieve a set goal (Khalil et al., 2022). Consumers' perception of moving towards goals is likely to strengthen the feeling of hope, further stimulating their willingness to achieve the goal through pathway thinking (Bapat & Khandelwal, 2023). The combination of affect, will, and ways lead consumers to achieve their goals (Bernardo, 2010). Therefore, in sustainable consumption, where products require high consumer involvement, hope affects their information processing process. This involvement of hope in information processing helps consumers establish a positive relationship with sustainable products. Therefore, consumers with high hopes are likely to consume sustainable products. Further, the broaden-and-build theory helps establish the relationship of consumer hope with SCB by arguing that hope (a coping strategy) broadens consumers' momentary thoughts-action repertoires and encourages them to achieve a set goal (i.e., SCB). Thus, the current study hypothesises the following:

H7: Consumer hope positively influences SCB.

3.5.6 Consumer goal attainment as a moderator

A goal is something that a consumer consciously strives to accomplish (Shao et al., 2019). As a more formal definition, the goal is consumers' conscious objective to anticipate or achieve

positive behaviour (Zhang & Huang, 2010). These definitions implicitly show that the goal has two critical aspects (i.e., consumer consciousness and anticipated target). For instance, consumers make a conscious effort to adopt the recycling process to mitigate the harm done to the environment. Tam and Spanjol (2012) and Zhang et al. (2017) suggested that gauging the consumers' goal attainment is vital because it helps academics and practitioners better understand consumption behaviour. The brand facilitating consumers' goal is to increase their trust in them and strengthen their willingness to consume the products (Temerak & El-Manstrly, 2019). Therefore, consumer goal attainment is a significant factor driving consumption, including sustainable consumption (Ramirez et al., 2015). Further, extant literature reflects a growing focus of researchers on consumer hope and behavioural outcomes (Cavanaugh et al., 2015; Lin et al., 2020). However, identifying a contingency to strengthen the translation of positive emotions, such as consumer hope, into actual consumption (including SCB) requires further research.

Consumer goal attainment is perceived to positively moderate the association of consumer hope with actual consumption behaviour (Fazal-e-Hasan et al., 2018). This essence is derived from the domain of psychology, where individuals' well-being is associated with their antecedents and is moderated by goal attainment. For example, Kehr (2003) observed that goal attainment significantly dampens the negative association of well-being with goal conflict. This indicates that an individual sense of achieving a goal improves personal well-being by reducing goal conflict. Similarly, research in online consumer behaviour considered consumer goal attainment as a moderator between hope and behavioural outcomes such as satisfaction. For instance, Fazal-e-Hasan et al. (2018) indicated that consumers who have high hopes in purchasing online products anticipate attaining and accomplishing goals, leading to satisfaction and trust among consumers. In sustainable consumer behaviour, consumer goal attainment can be accomplished via the perception of consuming sustainable products, which facilitates

consumers' thoughts of reducing unsustainable consumption, leading to a higher level of hope. In line with the broaden-and-build theory of positive emotions, the will part of hope motivates consumers to perform favourable behaviour (e.g., actual consumption) for themselves and others. Consequently, such consumers are likely to exhibit SCB. Conversely, consumers with low goal attainment tend to experience a low sense of achievement, leading to low hopeful consumers. Therefore, such consumers are less likely to exhibit SCB. Thus, the current research posits:

H8: Consumer goal attainment positively moderates the relationship of consumer hope with SCB.

3.5.7 Role of context in sustainable consumption behaviour: At home versus while travelling

The context surrounding phenomena sheds additional light, often incorporating factors related to units of analysis beyond those explicitly examined (Cappelli, 1991). Context plays a significant role in facilitating or inhibiting consumers' SCB (Yadav et al., 2019). It drives consumer behaviour using different theories, such as the theory of planned behaviour, norms-related theories, and attitude-behaviour-contextual theory, enabling researchers to have an in-depth understanding of SCB (Dhir et al., 2021a; Goldstein, Cialdini, & Griskevicius, 2008; Paul et al., 2016). Existing research on SCB highlighted that scholars such as Barbarossa, Beckmann, De Pelsmacker, Moons, and Gwozdz (2015) and Minto, Spielmann, Kahle, and Kim (2018) had considered culture as a context to understand consumers' involvement in sustainable consumption better. Similarly, Holmes et al. (2021), Ganglmair-Wooliscroft and Wooliscroft (2017), and Wu et al. (2021) studied the difference in consumers' eco-friendly behaviour at home versus while travelling.

According to Holmes et al. (2021), consumers prefer to consume sustainable products at home significantly higher than when travelling. Several internal, external, and personal factors drive consumers to purchase sustainable products in a given context (Wu et al., 2021). Internal factors include self-identity and values that influence SCB. For example, consumers often try to establish their identity based on the context (Patel, Trivedi, & Yagnik, 2020). Therefore, consumers purchase sustainable products to avoid the experience of an identity crisis (Barbarossa et al., 2015).

Similarly, external factors such as the brand's unethical practices in greenwashing lead consumers to feel cheated and avoid SCB (Martinez et al., 2020). It depends on the context of how consumers react to external factors when purchasing sustainable products. For example, consumers tend to lodge complaints more at the destination and switch products because of their high involvement (Akarsu, Marvi, & Foroudi, 2023; Ali, El-Manstrly, & Abbasi, 2023). It is essential to consider the context to develop an in-depth understanding of consumers in different settings. Therefore, the current study argues that consumers prefer more sustainable consumption at home than those travelling. Thus, this study posits:

H9: Consumers perform high SCB at home versus while travelling

3.5.8 Controlling the socio-demographic variables

Literature suggests that males and females differ in their SCB. For instance, male consumers have more positive intentions toward sustainable products than female consumers (Li et al., 2019). Coelho et al. (2017) observed that female consumers participate more actively in environmental welfare activities than male consumers. Further, Sivapalan et al. (2021) argued that consumers belonging to high-income groups are more oriented toward SCB, which reflects that income could facilitate or inhibit the SCB. Sidique et al. (2010) observed that education positively influences SCB. Similarly, Nguyen et al. (2019) found that educated consumers

intend to avoid SCB because of greenwashing, which indicates that education could motivate or not to adopt SCB. Therefore, in line with Bharti et al. (2022) and Dhir, Talwar, et al. (2021), this research controlled the effect of gender, education, and household income on SCB to avoid the counterfeit impact of these variables.

3.6 Model Development

This research examines the role of facilitators (i.e., green self-identity and perceived natural content), inhibitors (i.e., perceived greenwashing), and consumer hope as drivers, with environmental knowledge and consumer goal attainment as moderators, to study SCB. The current research uses the affect theory of social exchange and the broaden-and-build theory of positive emotions. By employing the affect theory of social exchange, this study explains how facilitators (green self-identity and perceived natural content) and inhibitors (perceived greenwashing) develop consumer hope. In addition, the broaden-and-build theory of positive emotions is utilised to illustrate how consumer hope is transformed into sustainable consumer behaviour. Consumers who perceive themselves as green consumers are more likely to experience the hope of consuming sustainable products (Arli et al., 2018). Similarly, consumers looking for natural product content are considered environmentally friendly. When interacting with information on natural content related to sustainable products, they are more likely to experience positive emotions, such as the hope of consuming sustainable products (Tandon, Jabeen, et al., 2021).

On the contrary, perceived greenwashing decreases consumers' cognitive capacity, confusing them and increasing their stress levels (Goh & Balaji, 2016; Peng & Chen, 2019). Hence, the current study proposes the positive relationship of consumer hope with green self-identity and perceived natural content while the negative association of consumer hope with perceived greenwashing. Further, hope is future-oriented and involves coping emotions that motivate consumers to exhibit positive behaviour, such as saving the environment (Snyder et

al., 1996). Therefore, this study uses the broaden-and-build theory of positive emotions to argue that consumers experiencing hope tend to perform SCB because it broadens their momentary thoughts-action repertoires and encourages them to achieve a set goal. Thus, consumer hope facilitates SCB. Drawing on these two theories, consumer hope may explain the mechanism of translation of facilitators and inhibitors into SCB; therefore, this research has employed it to understand the SCB better.

This research also aims to understand the role of environmental knowledge and consumer goal attainment as moderators on the link antecedents→consumer hope→ SCB (see Figure 3.1). The literature suggests that consumers with high environmental knowledge will likely be hopeful of consuming sustainable products. In contrast, those with low knowledge tend to be unaware of such products and less hopeful of consuming sustainable products (Taufique et al., 2017). Moreover, Ramirez et al. (2015) suggested that the likelihood of consumption of sustainable products increases with a high perception of the accomplishment of set goals. Similarly, Fazal-e-Hasan et al. (2018) found that hopeful consumers are delighted with the purchase because they have attained their goal. Thus, based on the above discussion, this research proposes that environmental knowledge and consumer goal attainment significantly moderate the association of consumer hope with its antecedents and SCB, respectively. In addition, following Bharti et al. (2022) and Dhir, Talwar et al. (2021), the current study controlled the effect of gender, education and household income on SCB to avoid the counterfeit effect of these variables.

In last, scholars such as Ganglmair-Wooliscroft and Wooliscroft (2017) and Wu et al. (2021) argued that consumers perform more sustainable behaviour at home in comparison when they are at their destination because of their attitude-behaviour gap and convenience in exhibiting SCB. Further, the literature focused on cognitive factors to test the difference in behaviour in two contexts (Holmes et al., 2021). Therefore, the current study compares

consumer hope (affective factor) for a sustainable consumption model at home versus travelling overseas.

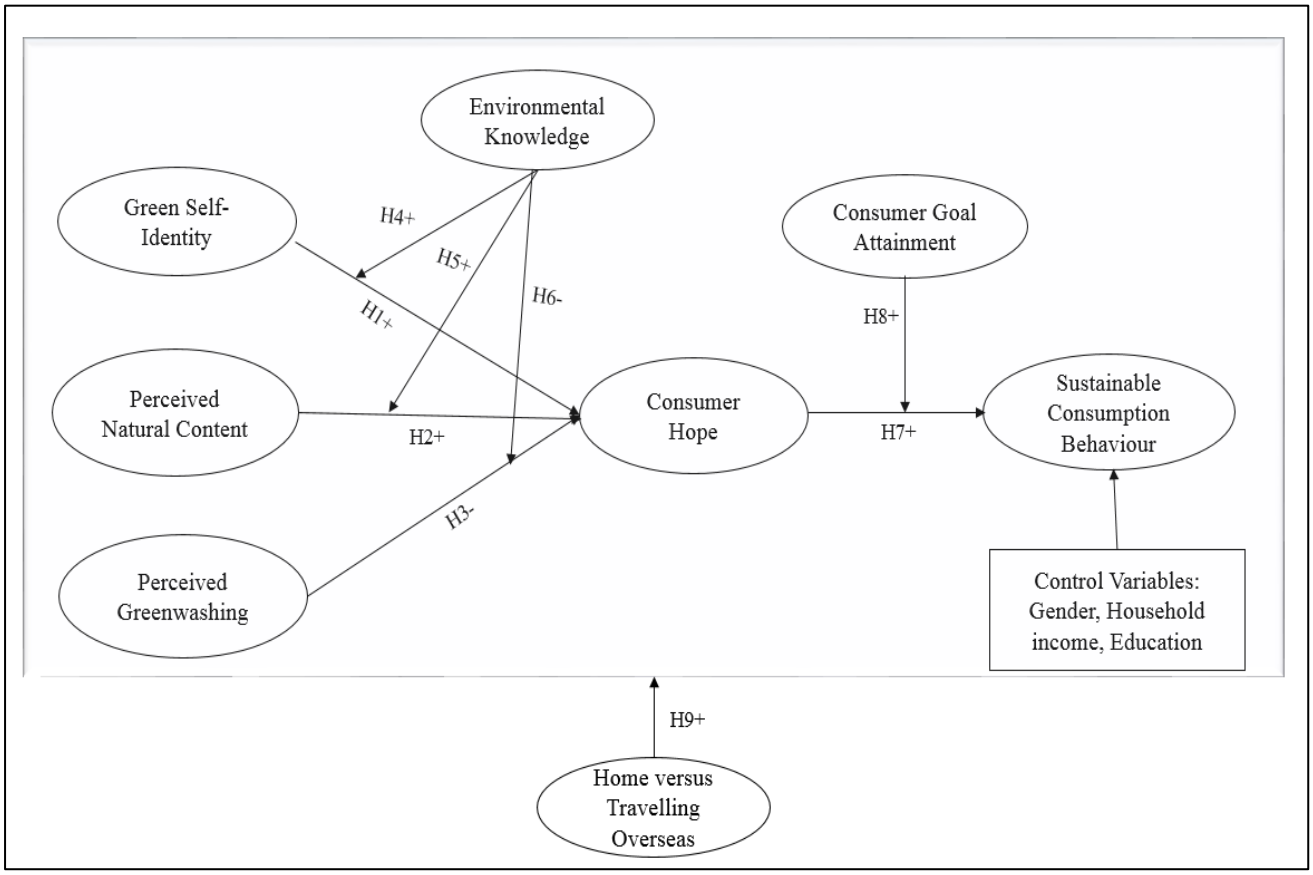


Figure 3. 1: Research model

3.7 Conclusion

This chapter focused on antecedents and consequences of consumer hope for sustainable consumption. The first section discussed research gaps and objectives the current study aims to address. Section 3.2 discussed the development of sustainable consumption behaviour literature. Section 3.3 focused on positive emotions, how positive emotions have been studied in SCB, and consumer hope. Furthermore, to answer the few research gaps and four research questions derived from a systematic literature review of emotions in SCB, this research has employed two theories — the affect theory of social exchange and the broaden-and-build theory of positive emotions. Next, based on literature and employed theories, the current study

formulated hypotheses to answer the research questions. Further, section 3.6 explains how the research model has been developed and the rationale for testing relationships. The methodology used to answer the identified research questions is discussed in the next chapter, "Research Methodology".

Chapter 4: Research Methodology

4.1 Chapter Overview

This chapter looks at the research design adopted for this study (section 4.2). The following section discusses the development of the survey instrument (section 4.3). Then, sections 4.4 and 4.5 focus on the study's content validity and pilot test. The sampling technique and final data collection process are discussed in section 4.6. The chapter ends with the data screening process (section 4.7), the expected tools to analyse the data (section 4.8), and the ethical considerations (section 4.9), followed by a summary of the chapter (section 4.10).

4.2 Research Design: Adoption and Justification

This research follows a positivist approach (see. Figure 4.1), using deduction through the survey method at a given period to test the hypotheses between the endogenous and exogenous variables (Saunders et al., 2019). Of the four given research paradigms under social science — positivism, realism, critical theory, and constructivism (Perry et al., 1999), positivism is preferred since the researcher does not involve himself directly in the process of data collection and also because the research is quantitative (Saunders et al., 2012). The current study is quantitative because it employs constructs from existing literature. Furthermore, the data is collected by a marketing research company (i.e., Qualtrics); therefore, the researcher is not directly involved in the data collection process.

The researcher aims to measure the impact of the independent constructs (green self-identity, perceived natural content, perceived greenwashing) on the dependent constructs (SCB) through a mediator (consumer hope) to draw meaningful conclusions. Further, the study measures the moderating role of environmental knowledge and consumer goal attainment in strengthening feelings of hope and increasing SCB. Therefore, under positivism, the deductive approach has been adopted.

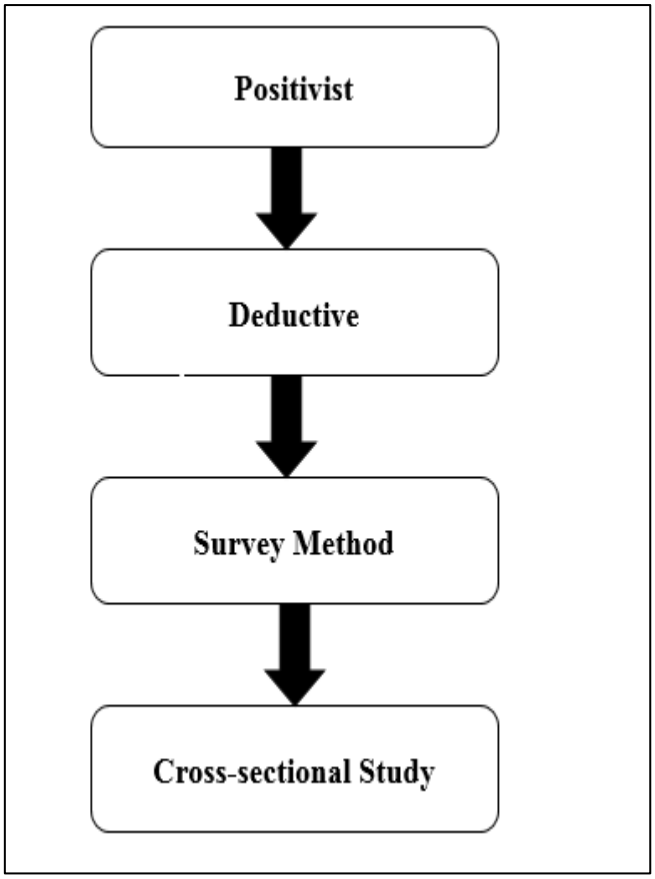


Figure 4. 1: The research design

The research follows the survey method to collect the primary data through an online self-administrated questionnaire. The survey method answers the descriptive research questions about the degree of the interrelationship between the constructs of interest (Creswell & Creswell, 2017), which can be generalised to the target population. The research has collected data using a cross-sectional approach, i.e., at a single point in time.

4.2.1 Advantages and disadvantages of an online survey method

Advantages of an online survey method:

1) It helps researchers to collect information in a structured, fast, and efficient way (Evans & Mathur, 2005).
2) The respondents have the liberty of answering the survey at their convenience, and they can review their responses thoroughly.

3) The possibility of participants' social-desirability bias is minimal in a survey approach (Krumpal, 2013).
4) Online surveys enable researchers to collect the data at a lower cost than offline surveys (Wilson & Laskey, 2003).

The online survey methods usually have a low response rate (Ilieva et al., 2002). However, this is not the case with the present study since it collected the data through Qualtrics, which provides options for selecting the required sample size. In addition, Qualtrics has strict quality-control to avoid bad data collection (Smith et al., 2016). Therefore, it helps the researcher collect reliable data compared to other data collection platforms, such as MTurk (Cobanoglu et al., 2021).

4.3 Questionnaire Development

The primary data in the present study is generated through a closed-ended structured questionnaire. The closed-ended questionnaire is comprised of pre-formulated responses (Malhotra, 2015). Many studies advocated that a survey through a closed-ended questionnaire is easy and time-saving for researchers and participants (Bryman & Bell, 2011; Malhotra, 2015). Furthermore, the extant literature in SCB suggests that researchers such as Dhir, Sadiq, et al. (2021) and Kumar et al. (2021) have employed closed-ended questionnaires to generate specific responses because of their inherent benefits. For example, a closed-ended questionnaire helps the researcher avoid irrelevant responses, and it is easy for respondents to answer the questions using predefined options (Khan & Adil, 2013). Thus, following the suggestions of previous researchers, this study has adopted a survey method for data collection using a closed-ended structured questionnaire.

The questionnaire has two major sections; the *first* contains employed variables measures, and the second relates to the respondents' demographics (see Appendix II). It

captures the individuals' responses about several demographical characteristics, such as gender, age, occupation, educational status, and household income per annum (in AUD).

4.3.1 Measures

Measures are required to gauge the employed variable in the survey-based study. This study identifies measures of employed variables based on a critical literature review. The constructs used in the study to conceptualise a research model are green self-identity, perceived natural content, perceived greenwashing, consumer hope, environmental knowledge, consumer goal attainment, and SCB. A brief description of the measures of the variables is provided in sections 4.3.1.1 to 4.3.1.7.

4.3.1.1 Green self-identity:

Scholars have proposed three scales to understand consumers' green self-identity. Sparks and Shepherd (1992) proposed a scale of self-identity with two items. Next, Lee (2009) proposed self-identity in the environmental protection scale of 3-items. Lastly, Barbarossa and De Pelsmacker (2016) proposed a four-item scale to measure green self-identity by adopting two items from Sparks and Shepherd's (1992) scale. This study found that the scales of Barbarossa and De Pelsmacker (2016), as well as Lee (2009), are widely used in sustainable consumer behaviour. This study adopted a scale of Barbarossa and De Pelsmacker (2016) for two reasons. First, explaining the preference for sustainable products would help consumers achieve their perceived identity aligned to the construct's concept employed in this study. Second, the reliability (Cronbach's alpha) of this scale is consistent across different studies in SCB, for instance, 0.83 in Barbarossa and De Pelsmacker (2016), 0.89 in Confente et al. (2020), 0.83 in Nguyen et al. (2016).

4.3.1.2 Perceived natural content:

To measure natural content, researchers such as Hur et al. (2010) and Marselle et al. (2016) have used a single item, while Kareklas et al. (2014) and Steptoe et al. (1995) proposed a 3-item scale, respectively. Further, Talwar, Kaur, et al. (2021) adopted a 4-item scale from Kareklas et al. (2014) and Steptoe et al. (1995) to measure natural content. The Cronbach alpha of the 4-item scale was 0.86. This study adopted the 4-item scale used by Talwar, Kaur, et al. (2021) because it is closer to general sustainable products and exhibited strong reliability, more aligned with the construct's concept employed in the current study.

4.3.1.3 Perceived greenwashing:

To measure consumers' perception of greenwashing, Chen and Chang (2013) proposed a five-item scale based on Horiuchi et al. (2009) and Laufer (2003). Besides, Schmuck et al. (2018) adopted Chen and Chang (2013) scale and added two items to measure perceived greenwashing. Of the two given scales, this study adopted Chen and Chang's (2013) scale because, first, the scale is in line with the construct's concept in this study, and second it is the most widely adopted scale in sustainable consumer behaviour and is more reliable to measure perceived greenwashing.

4.3.1.4 Environmental knowledge:

Measuring consumers' environmental knowledge is pertinent to understanding any nation's environmentally-friendly movement (Yadav & Pathak, 2016). Maloney and Ward (1973) proposed a scale of 24 items to measure environmental knowledge. In 1975, Maloney et al. revised the environmental knowledge scale of Maloney and Ward (1973) to improve the practical efficacy and psychometric properties by dropping nine items. Next, Mostafa (2007) adopted five items from the Ellen et al. (1997) scale to measure environmental knowledge, which discusses general knowledge of the environment. This study adopted the 5-item scale of

Ellen et al. (1997) because 1) this scale is closer to the construct's concept employed in the current study, and 2) internal consistency ranges from 0.78 to 0.90.

4.3.1.5 Consumer hope:

Consumer hope is a positive emotion that generally leads consumers to expect a positive outcome (Bapat & Khandelwal, 2023). Snyder et al. (1991) conceptualised hope as a function of will and a pathway to achieve a goal. Snyder et al. (1991) proposed a 12-item scale to measure trait hope. Snyder and his fellow researchers tested the trait hope scale across respondents, including university students, consumers seeking emotional treatment, and veterans suffering from war stress. The scale's reliability (Cronbach alpha) was in the range of 0.74 to 0.84. Snyder et al. (1991) reported that consumers' hope may change with the situation; however, the limitation of the trait hope scale gauges only the general hope of consumers. Therefore, this is a significant drawback of the trait hope scale, which motivated Snyder et al. (1996) to propose the state hope scale. This scale focuses on goal-oriented thought at a specific time (Nel & Boshoff, 2014). The State hope scale is a 6-item scale. It has three agencies and three pathways items. Snyder et al. (1996) conducted four studies to establish the reliability of the state hope scale. The results reflect that Cronbach alpha ranges from 0.76 to 0.95, showing strong reliability.

This study adopted the state hope scale for the following reasons. First, the state hope scale can measure specific hope, aligned with the construct's concept employed in this study, while trait hope measures general hope. Second, the measure was designed by psychologists and tested across different contexts, such as health psychology (Abdel-Khalek & Snyder, 2007), online retailing (Fazal-e-Hasan et al., 2018), and digital payment (Bapat & Khandelwal, 2023) due to its strong internal reliability.

4.3.1.6 Consumer goal attainment:

Consumer goal attainment is a process of conscious goal achievement (Huang & Zhang, 2011). Elliot and McGregor (2001) proposed a 12-item achievement goal scale to measure goal attainment. This scale is based on valence and definition to achieve the goal (Elliot & McGregor, 2001). The Cronbach alpha range is from 0.83 to 0.92, which reflects strong internal reliability. However, some items of the Elliot and McGregor (2001) scale do not indicate future behaviour. Elliot and Murayama (2008) revised the original achievement goal scale to overcome this issue. They proposed a scale that exhibited strong reliability (i.e., 0.84 to 0.94). This study adopted the revised achievement goal scale for the following reasons. First, this scale can measure the goal compared to the original achievement goal scale (Elliot & Murayama, 2008). Second, this scale exhibited stronger internal consistency than the original scale.

4.3.1.7 Sustainable consumption behaviour:

SCB is the dependent variable of the current study, which has been measured using a different measurement scale. Several scales are available to measure the SCB of consumers. For instance, ecologically conscious consumer behaviour (Roberts, 1991), green purchase behaviour (Chan, 2001) and general green purchase behaviour (Lee, 2009).

Roberts (1991) proposed a 30-item scale to measure ecologically conscious consumer behaviour to study consumers' preferences for sustainable products. Roberts (1996) tested this scale and reported bi-dimensional existence, while Roberts and Bacon (1997) observed six dimensions. A significant drawback is that the ecologically conscious consumer behaviour scale has been considered a predictor of actual purchase behaviour (Akehurst et al., 2012). Further, Chan (2001) proposed a three-item scale to measure green purchase behaviour based

on a semantic differential scale. Next, general green purchase behaviour was measured by Lee (2009) through a four-item scale based on the Likert scale.

The scales outlined above are validated in different cultural contexts to extend the knowledge of sustainable consumer behaviour. However, the ecologically conscious consumer behaviour (Roberts, 1991) and general green purchase behaviour (Lee, 2009) scales are widely used and relevant to SCB. Of these two scales, this study adopted the general green purchase behaviour scale for the following reasons: First, it is widely accepted in the sustainable consumption research domain and exhibited strong reliability. For example, a range of 0.86 to 0.90 was observed by Dagher and Itani (2014), Jaiswal and Kant (2018), Lee (2009) and Sharma et al. (2020). Second, unlike the ecologically conscious consumer behaviour scale, this scale does not have dimensionality issues.

4.3.2 Questions related to respondents' demographics:

The *second* section of the questionnaire relates to the respondents' demographics (see Appendix-II). It captures the individuals' responses about several demographical characteristics, such as gender, age, occupation, educational status, and household income per annum (in AUD).

4.4 Content Validity of the Questionnaire

Using an unclear or vague statement/s in the questionnaire may make it indecipherable/unclear to respondents and could create a bias in the data collection process (Shiu et al., 2009). Therefore, it is recommended to check the questionnaire's validity (Saunders et al., 2012). It can be prevented through content validity (Kimberlin & Winterstein, 2008), which is defined as the degree to which the explanation of the intended research question through the statements is adopted in the questionnaire. Aiken (1980) stated the content validity of the adapted scales by sending the questionnaire to a panel of experts. Therefore, this study sent the questionnaire

to a panel of marketing academics to check the validity of the content. This study has considered the suggestions given by academics to justify the suitability of the survey questions' content, phrasing, characteristics, and sequencing.

4.5 Pilot Survey

Collins (2003) and Sekaran (2003) recommended pre-testing the questionnaire before commencing with the final data collection process as it enables the determination of any weaknesses in the questionnaire design, instrumentation, clarity of items, and relevance. The researcher adopts a non-probability-based purposive sampling technique to conduct the pilot test. Following the suggestion of Kline (2014), the current research has collected data from 30 individuals to pre-test the questionnaire. The results indicate that all the employed variables are reliable, as the Cronbach's alpha values are above the threshold of 0.70.

4.6 Sampling Procedure and Final Data Collection

A particular section of the population is regarded as a sample. The current study preferred the sampling method for the census survey due to financial and time constraints and the dynamic nature of the population under study (Malhotra, 2015). Sampling is selecting objects from a particular section of the population under consideration (Malhotra, 2015). Sampling consists of three elements, namely, the (a) sampling elements, (b) sample size, and (c) sampling techniques. These three elements are discussed in detail below.

4.6.1 Sampling element

A sampling element is a unit that portrays the characteristics the researcher requires (Malhotra, 2015). Researchers such as Holmes et al. (2021), Jaiswal and Kant (2018), Kumar et al. (2021), and Paul et al. (2016) considered the *common consumer* as a sampling element in their studies while assessing SCB at home and while travelling overseas. Therefore, based on previous studies, this study considers the *common consumer* as a sampling element.

The qualifying criteria for selecting a sampling element were that the respondent (i) should be an adult, i.e., *18 years or above*, (ii) is Australian, (iii) is domiciled in Australia, and (iv) either have purchased sustainable products in the home or while travelling overseas in the last one year. However, the research does not target minors because the terms green, sustainability, and ecology are complex for them to understand (Chan, 2001). Due to this, mature adults (Paul et al., 2016) are made part of the current research. This is also in line with the previous research studies conducted in an Australian context, for example, by Lockie et al. (2004), Ma and Burton (2016), and Polonsky et al. (2011).

4.6.2 Sample size

Sample size and analysis techniques are very much related; hence, in research, the former depends heavily upon the latter (Malhotra, 2015). The current study employs SEM. In this multivariate analysis technique, the researcher must have a sample size of ten times the total number of items in the questionnaire (Hair et al., 2014). The final research instrument had 34 items measuring different variables under the present study, so the minimum sample size for this study should be 340 (34*10=340) (Hair et al., 2014; Kline, 2015). Previous studies on green buying behaviour in an Australian context have been conducted on a sample size ranging between 300 and 700, and they provide reliable conclusions (Dharmesti et al., 2020; Miller et al., 2015; Pearce et al., 2022). Thus, in line with the two situations above, the researcher approaches 600 respondents.

4.6.3 Sampling technique

There are two types of sampling techniques, i.e., probability and non-probability. To effectively apply the probability-based sampling technique, one must have a proper sampling frame (information about the sampling elements) (Malhotra, 2015). On the other hand, the non-probability sampling technique is based on researchers' personal choice or judgement

(Malhotra, 2015). The current study does not have a sampling frame; therefore, it employs non-probability-based purposive sampling to collect the data. This sampling technique, also known as judgmental sampling, helps researchers by providing easy access to the desired respondents at a convenient time and geographical location (Shiu et al., 2009). This study employed a purposive sampling technique due to its specific focus on consumers who have consumed sustainable products either while traveling overseas or at home within the last three years. Further, the non-probability-based sampling technique has been used by D'Souza, Apaolaza, Hartmann, and Brouwer (2021) and Nimri et al. (2020) in their studies to measure SCB in the Australian context.

4.6.4 Final data collection

After finalising the sampling element and sample size, the next step was to initiate the data collection process. The researcher approaches Qualtrics, a third party, to generate the primary data. The extant literature supports Qualtrics methodology, and evidence can be drawn from varied fields (Kang & Hustvedt, 2014; Kier & McMullen, 2018; Wastler et al., 2022). Qualtrics is a crowd-sourcing internet marketplace that helps researchers collect data through its servers. In addition, Qualtrics allowed the researcher to share his final questionnaire (See Appendix II) with the target population.

The data was collected in February 2024. It is done in two mutually exclusive phases: phase I and II. Phase I is a soft launch to pre-test the questionnaire in one week. Once done, this study has collected the final data from two groups in phase II, which runs for three weeks in February 2024. The first group comprises 300 consumers who have purchased sustainable products at home. The second group comprises 300 consumers who have purchased sustainable products while travelling overseas.

4.7 Data Screening

To ensure the quality of the statistical test, the researcher adopts the data screening process. The IBM Statistical package for the social sciences (SPSS) version 26.0 is used for data screening and descriptive analysis. Regarding social sciences research, IBM SPSS is one of the most widely used software platforms. Therefore, the data coding has been carried out before running it on SPSS. The coding has been conducted by assigning symbols and characters for the questionnaire.

Researchers such as Hair et al. (2014) and Khan and Adil (2013) suggested conducting descriptive analysis before employing multivariate analysis to test the research model. First, this study tests the missing data through a frequency test. Second, the researcher conducted Cook's distance test to identify the outliers. According to Stevens (2012), if Cook's distance is greater than 1 for any response, such responses should be treated as outliers. Lastly, to test the normality of the collected data, this study aims to conduct Skewness and kurtosis.

4.8 Tools and Techniques for Data Analysis

To empirically test a series of hypotheses and a research model developed under the present study, the researcher will employ some select conventional and advanced statistical tools. For example, the validity and reliability of the research model, structural model, and indirect effect are tested through the software package AMOS 26.0. Moderation is performed in Process Macro for SPSS. Further, this study used fsQCA 3.0 software to identify the different sets of variables that predict SCB.

4.8.1 Structural equation modelling

SEM refers to recognising dependency relations amongst constructs and concepts incorporated in an integrated model (Malhotra, 2015). The current research adopts the co-variance-based techniques since its objective is to test the employed theories in the SCB, while variance-based

SEM helps researchers to develop theory (Dash & Paul, 2021; Hair et al., 2014). The SEM enables researchers to check the measurement model as well as the structural model.

The SEM technique comprises two models, namely, (a) the measurement model and (b) the structural model (Hair et al., 2014). The measurement model not only represents the theoretical aspects that stipulate the indicators for every factor but also makes it possible to check the reliability of each factor used in the causal relationship. Using the measurement model, it is also possible to test the hypothetical relationship between the indicators and their latent factors (Henseler et al., 2016). The structural model represents the path coefficient between the latent constructs, explaining the degree of influence of the independent latent factor on the latent dependent factor (Hair et al., 2014; Khan & Adil, 2013). The different steps in SEM are provided in Figure 4.2.

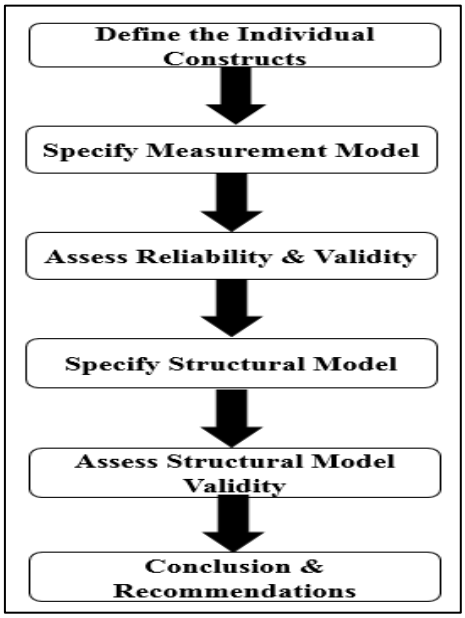


Figure 4. 2: Steps Involved in SEM (Malhotra, 2015)

4.8.1.1 Indirect effect:

An indirect effect is a process in which a causal chain is formed (Baron & Kenny, 1986; Hayes, 2017), where an independent variable influences a dependent variable through a mediator.

Using the bootstrap technique, this research employs AMOS to test the indirect effect of consumer hope between cognitive factors (facilitators and inhibitors) and SCB. It helps researchers to identify the indirect effect types, i.e., full or partial.

4.8.1.2 Moderation effect:

The moderation effect helps researchers understand that the translation rate of an independent variable into a dependent variable varies with the changing value of the moderating factor (Malhotra, 2015). An interaction effect tests the moderation of environmental knowledge and consumer goal attainment. First, the variables (moderator and independent) are computed in the SPSS. Second, the interaction effect is measured with the help of process macro for SPSS.

4.8.1.3 Multi-group analysis:

The multi-group analysis enables researchers to examine the variance in hypothesised relationships between the groups (Byrne, 2004). It is performed in two steps— a) measurement invariance and b) path invariance (Alrawad et al., 2023). Measurement invariance helps researchers to gauge whether the employed scales are interpreted the same in both groups (Steenkamp & Maydeu-Olivares, 2021), while path invariance explains the difference in hypothesised paths between the groups (Shadma et al., 2024). This research employs multi-group analysis using AMOS 26 software to test the difference in factors predicting SCB in two contexts (i.e., at home versus while travelling overseas).

4.8.2 Fuzzy set qualitative comparative analysis

This study will employ fsQCA 3.0 software to conduct fsQCA analysis, which identifies the patterns of causal variables that predict SCB. Ragin (2008) proposed an alternative qualitative comparative analysis that integrates fuzzy sets and logic principles to unravel several causal relationships. Notably, fsQCA is driven by consistency and coverage to produce different sets

of causal relationships that lead to SCB (Ragin, 2006). fsQCA is based on calibrated data. Therefore, in line with Ragin's (2008) recommendation, this study calibrates the data by setting three cut-off values — at 5% (full non-membership), 50% (cross-over point), and 90% (full membership). As the current study employs a 7-point Likert scale, this research follows Yadav et al. (2019) to convert the scale points into fuzzy sets.

4.9 Ethical Consideration

An ethics approval application was submitted to the Australian Catholic University Human Research Ethics Committee (ACU HREC) on 19 May 2023. The research ethics committee has approved the ethics application (Ethics register number: 2023-3220N). Ethical guidelines highlighted by the committee will be precisely focused on throughout the study. Survey respondents are thoroughly informed about the nature of the research processes involved in this research. They are also informed regarding their right to leave the survey at any time while undertaking it. The survey does not ask for the respondents' personal information, such as their names, date of birth, or any sensitive information not required to conduct this research.

4.10 Conclusion

The current Chapter explains the research methodology adopted to achieve the research objectives. The initial section includes an explanation of the current study’s research design, which is descriptive. Therefore, this study adopts an online survey method research design. Next, the data are generated with the help of a close-ended structured questionnaire, the items pooled together from the extant literature. Following the content validity of the questionnaire, this study shares the questionnaire for pre-testing and final data collection in Australia. The research instrument is shared on Qualtrics to collect data from 600 respondents who have purchased sustainable products while travelling overseas or at home. The researcher has opted for advanced multivariate techniques to analyse the data.

Chapter 5: Analyses and Findings

5.1 Chapter Overview

The current chapter looks at the demographic profile of respondents (section 5.2). Section 5.3 and section 5.4 discuss the internal consistency and common method bias. The following section (i.e., 5.5) discusses the measurement model of the research model. The structural model using AMOS is discussed in section 5.6. Next, section 5.7 dwells upon multi-group analysis to test the difference between the consumption of sustainable products at home versus while travelling overseas, followed by a fsQCA analysis in section 5.8. The last section (i.e., 5.9) summarises the findings of this research.

5.2 Socio-demographic Variables

This research considers the following socio-demographic variables: gender, age, education, and household income per annum. Table 5.1 demonstrates the details of respondents' socio-demographics.

Table 5. 1: Socio-demographic details

Variable		**Number**	**Percent**	**Cumulative Percent**
Gender	Male	264	45.2	45.2
	Female	318	54.5	99.7
	Prefer not to say	2	0.3	100
Education	High School or Less	117	20.0	20.0
	Bachelor's Degree or Higher	298	51.0	71.0
	Diplomas only	169	28.9	100
Employment	Employed full time	320	54.8	54.8
	Employed part-time or casual	106	18.2	72.9
	Unemployed	64	11.0	83.9

	Own Business	10	1.7	85.6
	Retired	84	14.4	100
Household Income/Annum (in AUD)	Less than 50,000	104	17.8	17.8
	50,001-75,000	87	14.9	32.7
	75,001-1,00,000	87	14.9	47.6
	1,00,001-1,25,000	122	20.9	68.5
	1,25,001-1,50,000	77	13.2	81.7
	Above 1,50,000	107	18.3	100
Age (in Years)	18-30	122	20.9	20.9
	31-40	203	34.8	55.7
	41-50	82	14.0	69.7
	51-60	64	11.0	80.7
	Above 60	113	19.3	100

This study has collected data from 600 respondents. Of these, 16 responses were found incomplete in the frequency test, leading to 584 as the final sample size, and no outliers were found. Therefore, data from the 584 sample size is used for further analysis. Of these 584 respondents, 54.5% were females. Most respondents (i.e., 51%) hold bachelor's or higher degrees. Similarly, most respondents are employed full time (i.e., 54.8%), have a household income/annum of 1,00,001-1,25,000 AUD, and are 31-40 years old.

5.3 Internal Consistency

In empirical quantitative studies, internal consistency, i.e., reliability of each variable, should be the foremost analysis to conduct (Churchill Jr, 1979). The thumb rule of George and Mallery (1999) states that the internal consistency value measured through Cronbach's alpha can be defined as "> 0.9 – Excellent, > 0.8- Good, > 0.7- Acceptable, > 0.6-Questionable, > 0.5- Poor, and < 0.5 – Unacceptable" (p.231). The current study conducted an internal consistency test

through Cronbach's alpha using SPSS 26.0. Table 5.2 demonstrates that the internal consistency of the employed variables was acceptable and a good range.

Table 5. 2: Internal consistency

Variable name	Cronbach's alpha	Range
Green self-identity	0.758	Acceptable
Perceived natural content	0.792	Acceptable
Perceived greenwashing	0.802	Good
Consumer hope	0.782	Acceptable
Consumer goal attainment	0.767	Acceptable
Environmental knowledge	0.804	Good
Sustainable consumption behaviour	0.832	Good

5.4 Common Method Bias

Common method bias (CMB) typically arises in a survey (e.g., self-reported) research when all the used variables (exogenous, endogenous, mediator, and moderator) data have been collected employing the same method (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003), leading to strengthen or dampen the relationships artificially. Therefore, scholars proposed ways to decrease the effect of CMB (Simmering, Fuller, Richardson, Ocal, & Atinc, 2014). First, researchers should carefully design a questionnaire and provide clear instructions to the respondents (Kock, Berbekova, & Assaf, 2021). The current research has followed this step. Further, to ensure the respondents' attentiveness, the researcher asks two attentiveness questions in the survey. The current research also used a 7-point Likert scale (i.e., strongly disagree to strongly agree) and a frequency-based scale (i.e., highly not likely to highly likely) to avoid the issue of CMB (Jordan & Troth, 2020). The remaining two techniques are post-data collection processes to identify whether data are free from CMB. Of these two techniques, one is Harman's single-factor analysis. If the variance value extracted by a single factor in

exploratory factor analysis is less than 50%, the data are free from CMB issues (Dhir, Talwar, et al., 2021). This research observed that a single factor explained 38.876% of the variance, less than the threshold value. Therefore, the data has no problem related to CMB. The existing literature also suggests running marker variable analysis using the common factor analysis technique (Jordan & Troth, 2020; Malhotra et al., 2017). First, the study conducts a common latent factor analysis to get a constrained value of 0.30. Next, a marker variable is introduced, unrelated to the research model. The result reflects that constrained values obtained in marker variable analysis (0.28) are less than 0.30 observed in common latent factor analysis. Thus, these results confirm that CMB does not affect the data (Dhir, Sadiq, et al., 2021).

5.5 Measurement Model

The measurement model empowers scholars to assess the fitness of the variables employed in the study and their validity. The current research used the Analysis of Moment Structures (AMOS) software to conduct confirmatory factor analysis. This analysis investigates the model's fitness, reliability, and validity of each employed variable.

5.5.1 Model fit:

Jöreskog and Sörbom (1993) suggest that the measurement model does not represent the entire population exactly. Therefore, it is essential to measure the fitness of the measurement model using the fit indices in confirmatory factor analysis. Hu and Bentler (1998) suggest several fit indices to identify the reliability of the data to test the hypothesised model.

The Chi-square (CMIN) value is considered one of the goodness-of-fit indices, which helps in measuring the reliability of the hypotheses. However, CMIN is very sensitive to sample size because it may provide non-significant value to a well-fitted model (Hu & Bentler, 1998). The CMIN/DF is known as the relative chi-square. It indicates the amount of fit lost in the data when eliminating one or more paths. According to the rules of thumb, if too many

paths are dropped, this index is expected to exceed 3 (Hair et al., 2014; Schermelleh-Engel, Moosbrugger, & Muller, 2003). Most researchers argue that the value of CMIN/DF is less than 3 to consider a model a good fit (Hu & Bentler, 1998; Kline, 1998), while values up to 5 are considered acceptable (Dash & Paul, 2021). The current study achieved a CMIN/DF value of 3.770 (see Table 5.3).

Other goodness-of-fit indices are the standard root mean square residual (SRMR) and the root mean square error of approximation (RMSEA). The cut-off values for SRMR and RMSEA are less than or equal to 0.080 (Bentler, 1995). This study observed 0.051 and 0.069 values of SRMR and RMSEA, which are under the threshold value.

The Goodness of Fit Index (GFI) gauges the variance the model explains in the sample variance-covariance matrix. Further, adjusted GFI (AGFI) is a model fit indices, which depends on the number of parameters in the research model. Researchers such as Hu and Bentler (1998) and Kline (2015) suggest that the values of GFI and AGFI should be 0.90 or above to consider the model a good fit. However, it is acceptable for a large sample size if these values are 0.80 or above. The values of GFI (0.895) and AGFI (0.859) are above 0.9, therefore they are acceptable.

The baseline comparison goodness-of-fit indices assess the fit of the base model by comparing it to the independent model rather than the saturated model. These indices include the normed fit index (NFI), Tucker–Lewis index (TLI), and comparative fit index (CFI). Hu and Bentler (1998) suggest that these indices for a measurement model must be 0.90 or above to be treated as a fit model. The current study found these values within the acceptable range.

Table 5. 3: Model fit indices

Model fit indices	Acceptable range	Actual values
CMIN/DF	> 5	3.770
GFI	0.80 <	0.895
AGFI	0.80 <	0.859

CFI	0.90<	0.915
TLI	0.90<	0.896
IFI	0.90<	0.916
RMSEA	>0.08	0.069
SRMR	>0.08	0.051

N=584

5.5.2 Reliability and validity

Reliability is defined as the accuracy of the measure to describe the construct. In common factor analysis, reliability is measured as composite reliability. According to Bacon, Sauer, and Young (1995), the minimum composite reliability value should be 0.70. The current study observed that each employed variable in the research model has composite reliability above 0.70 (see Table 5.4).

Table 5. 4: Reliability and convergent validity

Variable Name	Items Code	λ	AVE	CR
Green self-identity	GSI1	0.728	0.516	0.761
	GSI3	0.675		
	GSI4	0.750		
Perceived natural content	PNC1	0.792	0.657	0.793
	PNC2	0.829		
Perceived greenwashing	PGW2	0.725	0.504	0.802
	PGW3	0.706		
	PGW4	0.696		
	PGW5	0.712		
Consumer goal attainment	CGA1	0.749	0.523	0.766
	CGA4	0.706		
	CGA5	0.713		
Environmental knowledge	EK1	0.759	0.504	0.809
	EK2	0.692		
	EK3	0.733		
	EK4	0.685		
Consumer hope	CH2	0.701	0.559	0.787
	CH3	0.744		
	CH4	0.783		
Sustainable consumption behaviour	SCB1	0.819	0.625	0.833
	SCB2	0.811		
	SCB4	0.739		

Note: λ= Standardized factor loading; AVE= Average variance explained; CR: Composite reliability

Construct validity can be checked after conducting confirmatory factor analysis in two ways — convergent and discriminant validity. Convergent validity measures through average variance extracted (AVE), which indicates the portion of variance within a construct that is

accounted for by its indicators compared to the variance attributed to measurement error. Kline (2015) suggests that the AVE value should be 0.5 or above to establish a convergent validity of a construct. This study observed that all variables' AVE are above the threshold level (i.e., 0.5), establishing the convergent validity.

Another construct validity testing method, discriminant validity, gauges the difference between the employed variables. According to Fornell and Larcker (1981), discriminant validity is established when the square root value of the construct's AVE should be higher than the inter-correlation with other variables. The results reflect that the square root value of the variable is greater than the inter-correlation with other employed constructs. Therefore, the discriminant validity is established (see Table 5.5). However, the discriminant validity was not established between a few associations due to a moderately high correlation.

Table 5. 5: Fornell and Larcker discriminant validity method

	CH	**GSI**	**PNC**	**PGW**	**CGA**	**EK**	**SCB**
Consumer hope (CH)	0.743						
Green self-identity (GSI)	0.687	0.718					
Perceived natural content (PNC)	0.597	0.727	0.811				
Perceived greenwashing (PGW)	-0.426	-0.291	-0.205	0.710			
Consumer goal attainment (CGA)	0.698	0.839	0.728	-0.242	0.723		
Environmental knowledge (EK)	0.701	0.712	0.729	-0.161	0.657	0.718	
Sustainable consumption behaviour (SCB)	0.675	0.721	0.695	-0.192	0.790	0.852	0.79

According to Henseler et al. (2015), the Heterotrait-Monotrait ratio of correlations (HTMT) analysis is more accurate in detecting discriminancy between the employed variables in comparison to Fornell and Larcker's (1981) method. Therefore, to further ensure the discriminant validity, HTMT is performed in AMOS. The HTMT value of each construct was found to be below the threshold value (i.e., 0.85), signifying discriminant validity (see Table 5.6), and multicollinearity is not an issue.

Table 5. 6: HTMT method

	CGA	CH	EK	GSI	PNC	PGW	SCB
Consumer goal attainment (CGA)	**1**						
Consumer hope (CH)	0.717	**1**					
Environmental knowledge (EK)	0.649	0.709	**1**				
Green self-identity (GSI)	0.833	0.687	0.724	**1**			
Perceived natural content (PNC)	0.723	0.607	0.740	0.732	**1**		
Perceived greenwashing (PGW)	0.240	0.418	0.158	0.277	0.203	**1**	
Sustainable consumption behaviour (SCB)	0.798	0.699	0.847	0.733	0.695	0.196	**1**

5.6 Path Analyses

Following the confirmatory factor analysis and establishing the suitability of items based on their inter-item correlations, this study conducted path analyses to test the hypothesised model using IBM SPSS AMOS 26.0 software. Firstly, all the direct relationships were tested. The mediating effect of hope between consumer goal attainment and its antecedents is analysed afterwards. Thirdly, the moderating effect of environmental knowledge is analysed in the consumer hope model using Model 1 of Process Macro for SPSS. The moderation of consumer goal attainment from consumer hope to SCB is examined.

5.6.1 Direct relationship analysis

A structural model is used to test the direct hypothesised relationships. As recommended by the researchers (e.g., Dash & Paul, 2021), the study checks the goodness-of-fit indices. The result indicates all the required indices have met the threshold (CMIN/DF= 4.287; GFI= 0.922; CFI= 0.929; IFI= 0.930; RMSEA= 0.075; SRMR= 0.060), resulting in a good fit model. Now, the green self-identity has a significant and positive influence on consumer hope (β= 0.646; $p<$ 0.05), resulting in acceptance of H1 (see Table 5.7). Likewise, consumer hope has a positive and significant relationship with perceived natural content (β= 0.175; $p<$ 0.05). Thus, H2 is accepted. On the other hand, perceived greenwashing has a significant negative association with consumer hope (β= -0.11; $p<$ 0.05), confirming H3. The last direct relationship between consumer hope and SCB is tested. The result shows a significant relationship between them

(β= 0.779; p< 0.05), leading to acceptance of H7. Further, the controlled variables (Gender: β= -0.02; p> 0.05; Education: β= -0.03; p> 0.05; Household income: β= 0.05; p> 0.05) have insignificant influence on SCB. The percentage of variance explained in consumer hope and SCB is 67.0% and 59.5%, respectively.

Table 5. 7: Direct path analysis

Hypothesis	Path	ß	Sig	Support
H1	Green self-identity → Consumer hope	0.618	<0.001	Yes
H2	Perceived natural content → Consumer hope	0.208	<0.01	Yes
H3	Perceived greenwashing → Consumer hope	-0.106	<0.01	Yes
H7	Consumer hope → Sustainable consumption behaviour	0.772	<0.001	Yes

5.6.2 Indirect effect analysis

The indirect effect analysis was conducted using a bootstrap sample size of 2000 and AMOS 26.0 software. The results (see Table 5.8) demonstrate a significant indirect impact of green self-identity, perceived natural content, and perceived greenwashing on SCB via consumer hope. All indirect effects are partial mediation because the direct paths of the dependent variable with independent variables are significant.

Table 5. 8: Bootstrapping's indirect effects and 95% confidence intervals (CI) for the mediational model.

Indirect Pathways	ß	Sig	LLCI	ULCI	Mediation?
Green self-identity→ Consumer hope → Sustainable consumption behaviour	0.477	0.004	0.336	0.611	Partial
Perceived natural content→ Consumer hope → Sustainable consumption behaviour	0.160	0.050	0.025	0.288	Partial
Perceived greenwashing→ Consumer hope → Sustainable consumption behaviour	-0.082	0.035	-0.142	-0.020	Partial

5.6.3 Moderation analysis

The current study has two moderators — environmental knowledge and consumer goal attainment in the consumer hope model. Table 5.9 demonstrates the moderation effect of environmental knowledge and consumer goal attainment.

Table 5. 9: Moderation

Hypothesis	Path	β	T	P	LLCI	ULCI	Moderation?
H4	GSI→CH	0.08	3.15	.002	.030	0.130	Yes
H5	PNC→CH	0.06	2.89	.004	.018	0.094	Yes
H6	PGW→CH	0.02	0.675	0.50	-0.03	0.061	No
H8	CH→SCB	0.06	2.915	0.004	0.019	0.098	Yes

Environmental knowledge is hypothesised to be a moderator of consumer hope relationships with green self-identity, perceived natural content, and perceived greenwashing. Results indicate positive and significant moderation of environmental knowledge on the association of consumer hope with green self-identity and perceived natural content. However, environmental knowledge has an insignificant moderating effect on the relationship of perceived greenwashing with consumer hope. Therefore, environmental knowledge does not motivate consumers who have experienced greenwashing to develop hope for SCB. The next moderator is consumer goal attainment, which is hypothesised on the relationship of consumer hope with SCB. The result indicates that consumer goal attainment significantly strengthens consumer hope's influence on SCB. Thus, H4, H5, and H8 are supported, while H6 is rejected. Further, a complementary slope analysis is conducted to ensure the moderation effect. The results of significant moderation provide a better understanding of the nature of hypothesised moderation (see Figure 5.1, Figure 5.2, and Figure 5.3).

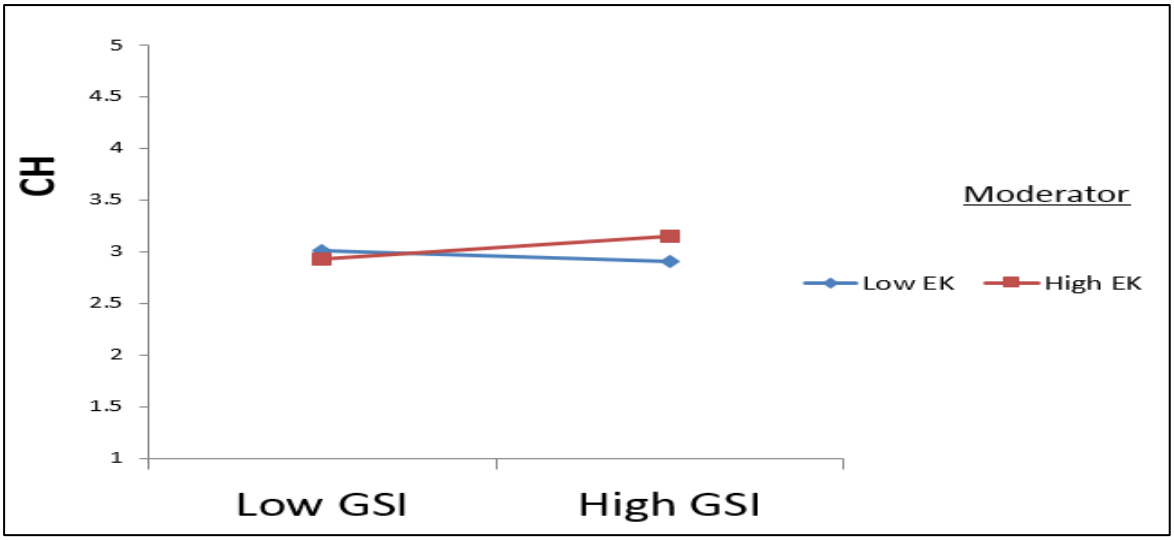


Figure 5. 1: The moderating effect of environmental knowledge (EK) on the relationship between green self-identity (GSI) and consumer hope (CH)

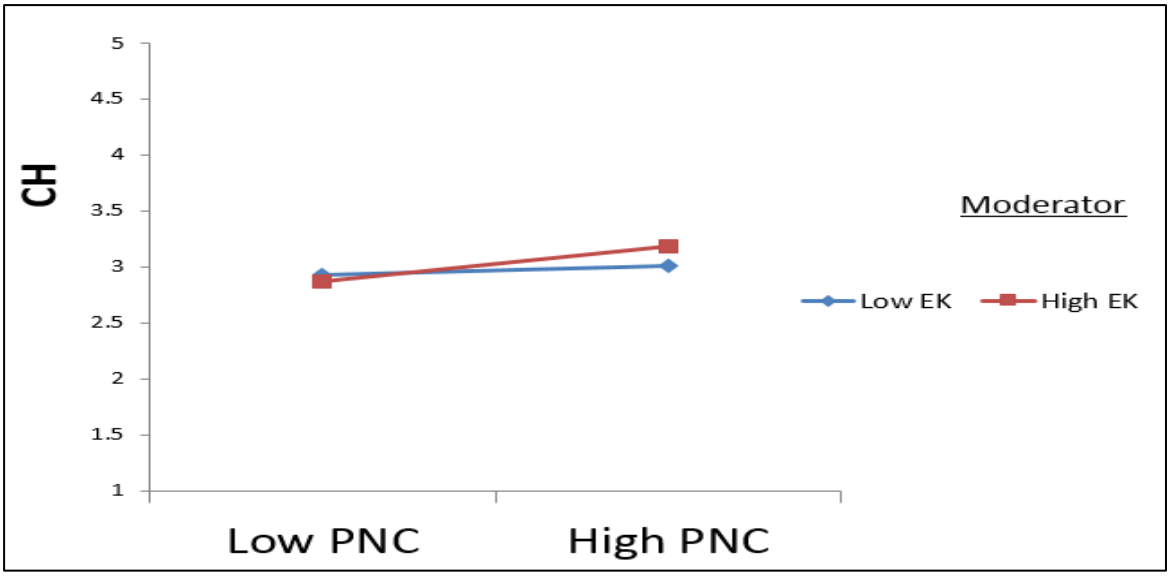


Figure 5. 2: The moderating effect of environmental knowledge (EK) on the relationship between perceived natural content (PNC) and consumer hope (CH)

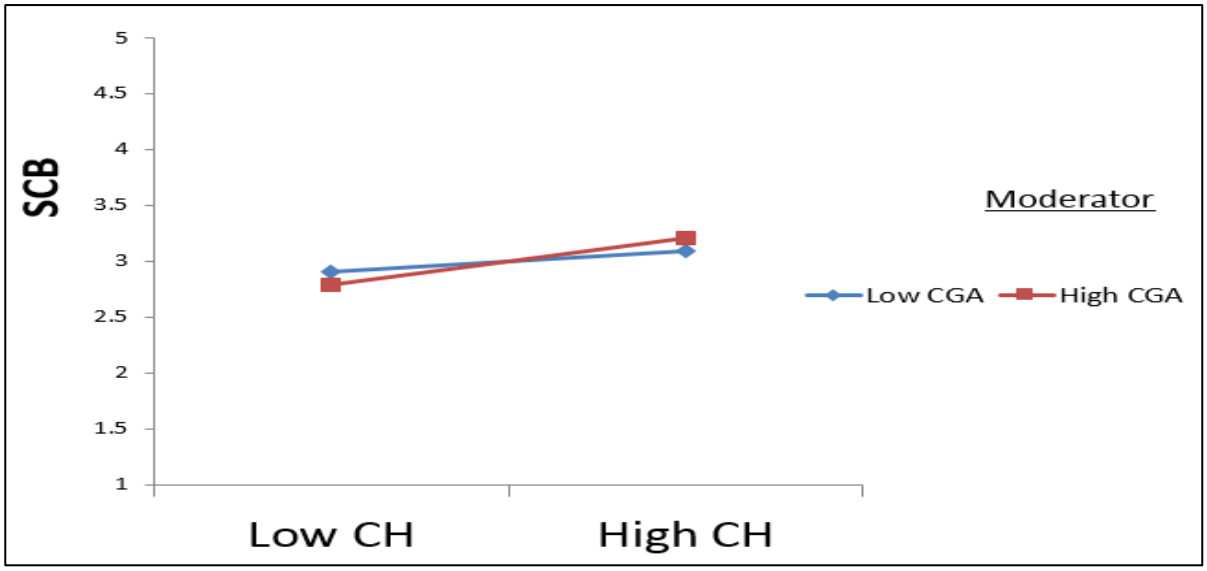


Figure 5. 3: The moderating effect of consumer goal attainment (CGA) on the relationship between sustainable consumption behaviour (SCB) and consumer hope (CH)

5.7 Multi-Group Analysis

The current study employs multi-group analysis to understand consumers' consumption of sustainable products while they travel overseas versus being at home. Multi-group analysis measures group differences in the population (Cheah, Amaro, & Roldan, 2023). It has two steps—first; measurement invariance helps understand that the scales adopted to measure the employed variables have been interpreted accurately across the group. Second, structural invariance measures the difference in the regressed pathways across the groups (Byrne, 2004).

First, this research conducted measurement invariance through confirmatory factor analysis in AMOS 26.0 software. In line with Steenkamp and Maydeu-Olivares (2021), this research has performed Measurement invariance analysis in five stages— a) configural invariance, b) metric invariance, c) scalar invariance, d) partial scalar invariance, and e) error invariance. Configural invariance gauges whether the same factors come from different groups, which is tested through model fit indices (Kline, 2011). The result indicates that both group measurement models have good model fit indices (CMIN/DF= 2.632; CFI= 0.904; IFI= 0.905; RMSEA= 0.053; SRMR= 0.048), leading to establishing configural invariance. Following the

configural invariance, this research tests metric invariance. Researchers such as Byrne (2016) and Kline (2011) suggest that metric invariance assumes that all groups have equal factor loadings. This study found that the model fit slightly deteriorated according to various criteria. Table 5.10 reflects that CFI in full metric variance is slightly less than model 1. The value of ΔCFI is less than the threshold value of 0.01 (Cheung & Rensvold, 2002); therefore, the metric invariance is accepted. Further, the insignificant chi-square difference test reflects that neither groups perceives variables differently in configural and metric models.

The next measurement invariance test is scalar invariance, which assumes that measurement intercepts and structural covariance do not differ between the selected groups. Similar to metric invariance, CMIN and CFI parameter differences should be met. Table 5.10 demonstrates that ΔCMIN and Δdf are significant. However, ΔCFI is below the threshold values between the models (Cheung & Rensvold, 2002), reflecting the scalar invariance between the groups. To further ensure the acceptance of scalar invariance, this study has unconstrained each item at a time in the scalar invariance model (see Appendix VI). The results indicate that most items are invariant, which supports scalar invariance. Additionally, the partial scalar invariance model is tested. The findings are aligned with scalar invariance.

Last, an error invariance model is tested. Table 5.10 reflects that ΔCFI and ΔCMIN criteria are not met; therefore, both groups differ at residual error level. This study has further investigated it by unconstraining each residual error at a time. The findings of Appendix VII demonstrate that most of the residual errors are non-invariant, supporting that consumers travelling overseas may experience difficulties in consuming sustainable products, which leads them to perceive SCB phenomena differently from those who consumed sustainable products at home.

Table 5. 10: Measurement Invariance

Model Number	Type of invariance	X^2 (df)	Δ X^2 (Δ df)	RMSEA (Δ RMSEA)	SRMR (Δ SRMR)	CFI (Δ CFI)	Comparison	Decision
M1	Configural Invariance	1095.113 (416)		0.053	0.0481	0.904		Accepted
M2	Substantive metric invariance	1115.105 (430)	19.99 (14)^{ns}	0.052 (0.001)	0.0498 (0.0017)	0.903 (0.001)	M1 vs M2	Accepted
M3	Scalar invariance	1152.8 (446)	37.70 (16)**	0.052 (0.000)	0.0496 (0.003)	0.9 (0.004)	M2 vs M3	Accepted
M4	Partial scalar invariance	1137.976 (444)	14.82 (2)**	0.052 (0.000)	0.0495 (0.0001)	0.9 (0.004)	M3 vs M4	Accepted
M5	Error Model	1536.8 (467)	398.82 (23)***	0.063 (0.011)	0.0669 (0.0174)	0.848 (0.053)	M4 vs M5	Rejected
Criteria			Non-significant	<0.08 (<0.015)	<0.08 (<0.03)	>0.9 (<0.01)		

After establishing the measurement invariance between the groups, this study conducts a path (structural) invariance analysis. The estimate of paths between groups reflects a non-significant relationship of consumer hope with perceived greenwashing and perceived natural content. Therefore, this study deleted these two non-significant relationships from the path invariance analysis (Gaskin, 2016). The model fit of the unconstrained model is checked (CMIN= 174.521; df= 50; CMIN/df= 3.490; CFI=0.949; IFI= 0.949; RMSEA=0.065; SRMR= 0.045), indicating that all fit indices are within the recommended values (Hu & Bentler, 1998). Further, in line with the suggestion of Alrawad et al. (2023) and Gaskin (2016), the current study develops two models to check the structural invariance. The first model is developed without any constraints on the regressed pathways (i.e., unconstrained), while the second model has constrained all regressed pathways. Now, the CMIN test is employed to check the invariance between the models. The result indicates that the models are not invariant ($\Delta\chi^2$= 26.588; Δdf=4; p= 0.000). After this, the current study sequentially constrained each path to identify whether the paths differed between the selected groups. Table 5.11 shows the $\Delta\chi^2$, Δdf, and p-values of each regressed path of the consumer hope model. The results reflect that the path from green self-identity to consumer hope is invariant across the groups. However, the

relationship of consumer hope with SCB is significantly variant. Further, the variance explained in consumer hope at home and while travelling overseas was 63.4% and 62.8%, respectively. Likewise, the variance explained in SCB at home was 64.9%, greater than 48.3% of the variance explained in SCB while travelling overseas, leading to acceptance of H9.

Table 5. 11: Multi-group structural invariance

Path	Home		Overseas		χ^2 at 95%	χ^2	$\Delta\chi^2$	Decision
	B	P	β	P				
GSI→CH	0.785	0.001	0.771	0.001	178.36	175.934	2.46^{ns}	Rejected
CH→SCB	0.806	0.001	0.695	0.001	178.36	193.198	14.84*	Accepted

*= P≤0.05; ns= non-significant

5.8 fsQCA

In addition to SEM, the current study has employed fsQCA to explore the multiple causal pathways to explain sustainable consumption. fsQCA assesses the causal relationship between the employed variables as an alternative to regression (Ragin et al., 2006). Using fuzzy logic, the analysis identifies the combinations of causal conditions that lead to dependent variables (Pappas & Woodside, 2021). The current study adopts fsQCA analysis to determine the fitting combinations of variables — green self-identity, perceived natural content, perceived greenwashing, environmental knowledge, consumer hope, and consumer goal attainment— leading to SCB, a dependent variable (see Figure 5.4). fsQCA is based on calibrated data. Therefore, in line with Ragin's (2008) recommendation, this study calibrates the data by setting three cut-off values — at 5% (full non-membership), 50% (crossover point), and 90% (full membership). As the current study employs a 7-point Likert scale, this research follows Yadav et al. (2019) to convert the scale points into fuzzy sets (see Table 5.12).

Table 5. 12: Fuzzy set sources

Constructs	Fuzzy set calibration							
	Fully-in	Cross-over	Fully-out	Mean	SD	Min	Max	N-Cases

GSI	6.00	4.00	2.00	5.27	1.05	1.00	7.00	584
PNC	6.00	4.00	2.00	4.47	1.44	1.00	7.00	584
PGW	6.00	4.00	2.00	2.85	1.29	1.00	7.00	584
EK	6.00	4.00	2.00	4.84	1.13	1.00	7.00	584
CH	6.00	4.00	2.00	5.30	1.09	1.00	7.00	584
CGA	6.00	4.00	2.00	5.41	1.06	1.00	7.00	584
SCB	6.00	4.00	2.00	5.20	1.06	1.00	7.00	584

Note: GSI: Green Self-identity; PNC: Perceived natural content; PGW: Perceived greenwashing; EK: Environmental knowledge; CH: Consumer hope; CGA: Consumer goal attainment; SCB: Sustainable consumption behaviour

Calibration cutoff: (fully-in = upper quartile, crossover = median, fully-out = lower quartile).

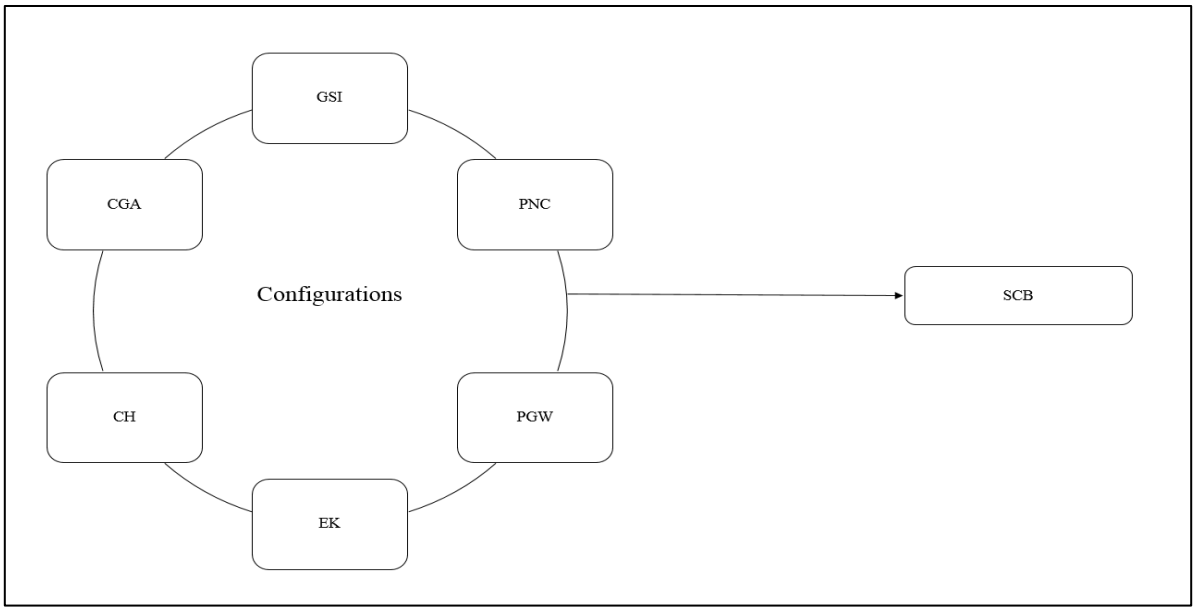


Figure 5. 4: Causal conditions

fsQCA's model fits are obtained from the literature (To, Au, & Kan, 2019). The minimum values of consistency are recommended to be 0.75 (Pappas & Woodside, 2021), the unique coverage value must be higher than 0 (Ragin, 2008), and the threshold value for solution consistency is 0.74 (Pappas & Woodside, 2021). fsQCA analysis divides the combinations into necessary or sufficient conditions for predicting the dependent variable (Schmitt, Grawe, & Woodside, 2017). A condition is necessary if consistency is above 0.65 (Pappas et al., 2020; Ragin, 2008). Table 5.13 demonstrates the necessary conditions in the presence or absence of

green self-identity, perceived natural content, perceived greenwashing, environmental knowledge, consumer hope, and consumer goal attainment to predict the SCB. According to Pappas et al. (2020), conditions meeting or surpassing the 0.65 consistency threshold are deemed adequate. The result in Table 5.13 shows that the consistency of employed variables is above the recommended value, while greenwashing's consistency value does not meet the threshold. It is aligned with the existing literature (Apaolaza, Policarpo, Hartman, Paredes, & D'Souza, 2023; Szabo & Webster, 2021), where authors have argued that perceived greenwashing negatively influences consumers' sustainable behaviour. Therefore, this study found that all causal factors and the absence of perceived greenwashing factor conditions are necessary.

Table 5. 13: Necessary conditions

Conditions	**SCB**	
	Consistency	**Coverage**
GSI	0.9207[a]	0.9087
~GSI	0.2321	0.8856
PNC	0.7352 [a]	0.9525
~PNC	0.4174	0.8293
PGW	0.3175	0.9284
~PGW	0.8068 [a]	0.8645
CCG	0.8525 [a]	0.9538
~CCG	0.3285	0.8643
CH	0.9143 [a]	0.9016
~CH	0.2288	0.8758
EK	0.9441 [a]	0.9024
~EK	0.1916	0.8367

Note: [a]Meets the 0.65 consistency benchmark for usually necessary conditions

The fsQCA method can differentiate between essential conditions and those that are less significant or irrelevant, with this distinction rooted in the strength of evidence regarding the outcome (Kumar, Sahoo, Lim, Kraus, & Bamel, 2022). The fsQCA software provides three potential solutions: complex, intermediate, and parsimonious. Within the complex solution, every possible combination of conditions is considered, potentially leading to the identification

of numerous configurations, some of which may involve multiple terms. This can make interpreting the results challenging and often impractical (Pappas & Woodside, 2021).

The parsimonious solution simplifies the complex solution by highlighting only the essential causal factors, known as core conditions, crucial for any solution while omitting peripheral conditions. Nonetheless, this approach simplifies assumptions about unpopulated truth table rows and may include solutions with limited cases, regardless of their empirical validity (Kumar et al., 2022). The intermediate solution involves adding extra conditions in cases consistently associated with the outcome. However, this may involve overlooking challenging counterfactuals that align with empirical observations rather than theoretical assumptions (Kopplin & Rosch, 2021). The additional conditions, commonly called peripheral, constitute a subset of the parsimonious solution. Opting for a solution encompassing core and peripheral conditions is usually advantageous as it provides a more nuanced and comprehensive understanding of the findings (Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2016). The intermediate solution is the primary focus of this analysis. Table 5.14 demonstrates the implications related to SCB, as indicated by Ragin's (2009) notations.

Table 5. 14: Intermediate Solutions

Paths	**Environmentally apathetic Consumers**		**Self-Conscious Consumers**		**Eco-Conscious Consumers**			**Pro-Environmental Consumers**		
GSI		⊗	●	●	⊗	⊗		●		●
PNC	⊗	⊗				●	⊗	●	●	
PGW	⊗		⊗	⊗	⊗	⊗				
EK	⊗	⊗	⊗		●	●	●	●	●	
CH							●		●	●
CGA		⊗		●	⊗		⊗	●	●	●
Raw Coverage	0.2457	0.1313	0.2776	0.7371	0.1363	0.1584	0.1571	0.6632	0.6605	0.8427
Unique Coverage	0.0031	0.0003	0.0017	0.0074	0.0004	0.0003	0.0022	0.0031	0.0032	0.0386
Consistency	0.8836	0.917	0.9186	0.9484	0.9773	0.9828	0.9696	0.9869	0.9875	0.9518
solution coverage: 0.9197 solution consistency: 0.9052										

The proposed framework showcases a consistency level exceeding 0.80 across the intermediate solution and its subsets, yielding an overall consistency score of 0.905. This study observed that solution coverage is 0.9197, reflecting that these conditions predict 91.97% of the SCB. Further, consistency coverage ranges from 0.883 to 0.987, above threshold values of 0.75. This high level of consistency is attributable to the distinct criteria delineating each of the ten solution paths and multiple satisfactory solution paths, resulting in equifinality (Pappas & Woodside, 2021). The range of unique coverage is from 0.003 to 0.038, which is above 0. These results reflect a good model fit.

In line with previous studies (e.g., Bhattacharya et al., 2023; Roy, Balaji, Quazi, & Quaddus, 2021), the current research uses a black circle (●) to indicate the presence of a condition, while a cross in-circle (⊗) indicates the absence of a condition. The causal factors are present in all configurations except one. Configuration 1 suggests the absence of all factors associated with SCB. This group is termed 'environmentally apathetic consumers', reflecting that they do not prefer sustainable products because they lack environmental knowledge, green self-identity, perceived natural content, and consumer goal attainment. Configuration 2, termed 'self-conscious consumers', reflects a group concerned about their image when preferring SCB. Unlike environmentally apathetic consumers, this group cares for their image. Configuration 3, termed 'eco-conscious consumer', demonstrates a group that exhibits knowledge about the environment, looks for natural content when purchasing sustainable products, and demonstrates hope for sustainable consumption. This group seeks information on sustainable products and the environment without caring about the greenwashing experience. The last configuration, labelled 'pro-environmental consumers', reflects consumers who exhibit green self-identity, perceived natural content, environmental knowledge, consumer hope, and consumer goal attainment, leading them to prefer SCB.

5.9 Summary

The present study has tested the consumer hope model for sustainable consumption using the SPSS, AMOS, and fsQCA software. First, all the employed variables are reliable as the Cronbach alpha value exceeds 0.7. Second, the measurement model indicates that the employed variables' data are reliable and valid for testing the hypothesised consumer hope model. Third, a structural model demonstrates that all the hypothesised relationships are supported, except the moderating effect of environmental knowledge on the relationship between perceived greenwashing and consumer hope (see Figure 5.5). Next, a multi-group analysis provides insights into the path invariance between consumers who had purchased sustainable products while travelling overseas and those who had experienced them in Australia. Last, this study conducted fsQCA to identify the accurate combinations of the variables to predict the SCB.

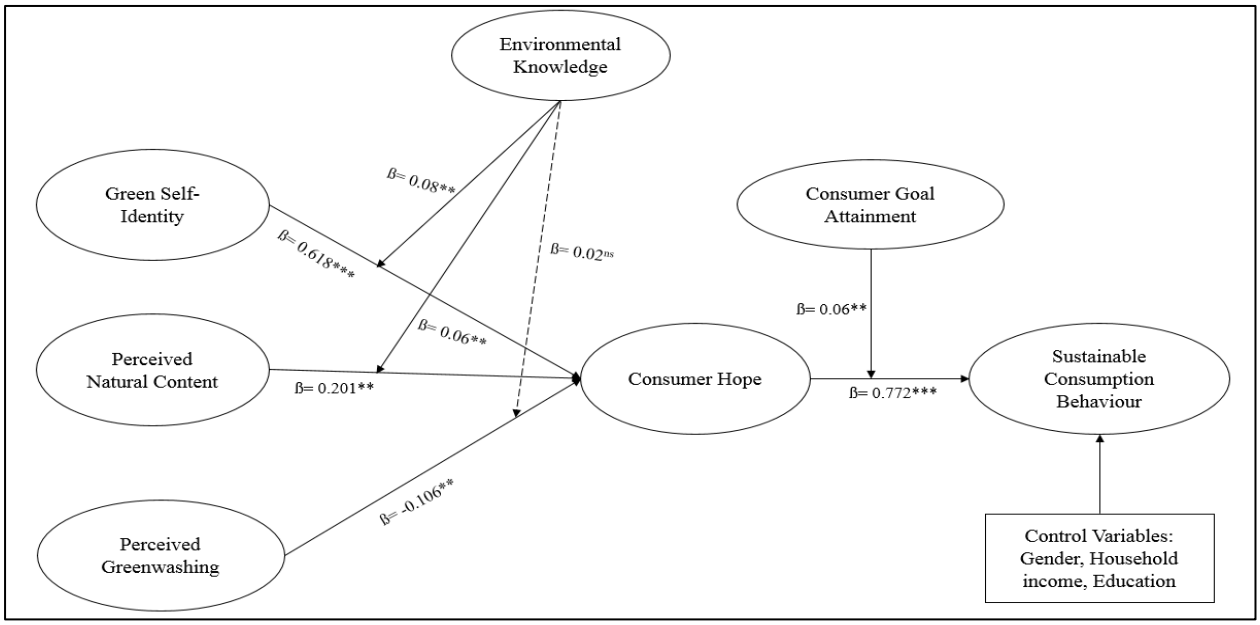


Figure 5. 5: Structural model

Chapter 6: Discussion and Conclusion

6.1 Chapter Overview

This final chapter discusses the thesis findings and proposes theoretical contributions to the SCB literature based on them. Following the discussion and theoretical contributions, practical contributions are presented as environment-friendly strategies for brand managers, policymakers, and marketers. This chapter also discusses the study's limitations and recommends future research directions. Lastly, this chapter concludes the study's findings.

6.2 Discussion

Despite increasing awareness of the environmental and social impacts, consumers' consumption of sustainable products does not align with their perceptions (Ganglmair-Wooliscroft & Wooliscroft, 2022; Lavuri et al., 2023b). This study uses a mixed-method approach to understand the paradoxical difference between consumers' perceptions and behaviours towards sustainable products. Firstly, the study conducted an SLR to investigate this paradoxical difference between perceptions and behaviour. The literature indicates that most studies focused on cognitive factors such as attitude and perceived behavioural control (e.g., Haj-Salem et al., 2022; Santos-Corrada et al., 2024). While a few have considered affective factors such as pride, guilt, gratitude and love when studying SCB (El-Haffar et al., 2020), no research has focused on understanding SCB through consumer hope (affective factor). A consumer hope model was developed using the affect theory of social exchange and the broad-and-build theory of positive emotions. Secondly, it utilises theoretical frameworks of the affect theory of social exchange and the broad-and-build theory of positive emotions to empirically test and validate the hypotheses (H1-H9) through covariance-based SEM.

The impact of green self-identity on consumer hope (i.e., H1) is supported. This finding aligns with Mahasuweerachai and Suttikun (2023), who posit that green self-identity significantly influences a warm glow (a positive emotion). This outcome implies that consumers with high green self-identity hope to improve the environmental quality because of their thoughts that consuming sustainable products would improve their image as environmentally friendly consumers in society. The fsQCA findings further support H1, where a group of consumers was identified as 'self-conscious' due to their desire to associate themselves with the 'pro-environmental consumers' group. This desire in them fosters a hope for sustainable consumption.

The results of our study support H2 and are consistent with the findings of Kumar et al. (2021) and Mody et al. (2019). They suggested that the natural content of sustainable products can elicit consumers' love for eco-friendly brands (a positive emotion). Similarly, the current research posits that the presence of natural ingredients in the products fosters feelings of hope. This result validates the idea that products free from artificial ingredients and rich in natural content can engender positive and hopeful feelings in consumers. Furthermore, consumers tend to prefer products with natural ingredients because doing so reduces their anxiety about potential side effects (de-Magistris & Gracia, 2016), leading to a more positive outlook and a greater sense of hope towards consuming sustainable products. These findings are further supported by the results of the fsQCA, showing that consumers' perception of natural product content generates hope for consuming such products.

Next, this study tested the influence of greenwashing on consumer hope (H3). Previous research has studied the positive association of perceived greenwashing with negative emotions such as flight shame and brand hate (such as Neureiter & Matthes, 2023; Sajid, Zakkariya, Suki, & Islam, 2024). However, the current study is among one of the first to study the association of greenwashing with consumer hope. The findings of H3 indicate that perceived

greenwashing negatively influences consumer hope as consumers become aware of brands' greenwashing activities. This awareness leads to cognitive dissonance between their desire for sustainable products and the recognition of the negative environmental impact these products may cause. Therefore, greenwashing may lead to uneasiness, generating avoidance tendencies and scepticism toward the consumption of sustainable products. For example, Szabo and Webster (2021) argued that consumers' cognitive capabilities (i.e., perceived greenwashing) generate negative emotions such as anger or fear, which are inversely associated with positive emotions. Consequently, such consumers are hesitant and lack hope in consuming sustainable products.

Considering the moderating role of environmental knowledge, this study tested H4-H6 hypotheses, with all hypotheses being supported except for H6 (i.e., environmental knowledge*perceived greenwashing→consumer hope). Previous research has used environmental knowledge as a moderator to study the attitude-behaviour gap (Kumar et al., 2017; Sadiq et al., 2021). However, this research is among the first studies to examine the moderating effect of environmental knowledge on the relationship between consumer hope and its antecedents. As Becerra et al. (2023) suggest, consumers who perceive themselves as environmentally friendly are more likely to process the positive information related to sustainable products effectively, leading to the cultivation of hope for consumption. Similarly, Tandon et al. (2021) argue that health-conscious consumers focus on personal knowledge about natural content, making it logical that such information motivates consumers to develop hope for consuming sustainable products.

H6 is related to the interaction effect of environmental knowledge with perceived greenwashing on consumer hope and is found to be non-significant. Consumers who have experienced greenwashing are likely to develop negative feelings, regardless of positive information about sustainable products (Neureiter & Matthes, 2023), resulting in limited or no

hope for consuming sustainable products. The lack of a significant connection between perceived greenwashing*environmental knowledge and consumer hope may be because greenwashing creates doubt and distrust about the eco-friendliness of brands and the information sources that promote them. This mistrust leads to negative feelings, diminishing the trustworthiness of positive information about eco-friendly brands. As a result, consumers may not develop significant levels of hope towards consuming such products.

The current study tested the influence of consumer hope on SCB, finding a significant impact, which led to the acceptance of H7. Previously, Bapat and Khandewal (2023) and Fazal-e-Hasan et al. (2019) observed positive outcomes of hope, such as satisfaction and commitment towards online purchases. However, our study posits that hope has a positive association with SCB, a link that has not been previously examined.

Next, consumer goal attainment significantly moderated the association of SCB with consumer hope (H8). While Fazal-e-Hasan et al. (2018) claimed that consumers with set goals are more likely to accomplish them in different ways and exhibit positive outcomes in an online context, this study uniquely confirms the moderated role of consumer goal attainment on the relationship between consumer hope and SCB. The possible justification is that consumers with high hope, in contrast to those with low or no hope, demonstrate a greater ability to cope with challenges and achieve their set goals, with confidence in the effectiveness of the multiple paths to consume sustainable products. Therefore, consumers with high goal attainment and hope tend to exhibit SCB.

Next, this study tested the difference in SCB at home versus while travelling overseas (H9). The result indicates that consumers exhibit higher SCB at home compared to when they are travelling overseas. Ganglmair-Wooliscroft and Wooliscroft (2017) and Wu et al. (2021) examined the differences in general sustainable behaviour at home versus travelling overseas.

The current study, however, is uniquely focused on the consumption of sustainable products and posits that consumers tend to show lower SCB at overseas destinations due to their preference for hedonic gain values (Lee, Lee, Lee, & Ahmad, 2021). Consequently, they are less inclined to portray themselves as green consumers while travelling compared to when they are at home. Moreover, consumers at home are less affected by greenwashing practices than those travelling overseas. On the other hand, consumers travelling overseas may hesitate to purchase sustainable products due to limited knowledge and a heightened perception of greenwashing, leading them to avoid the uncertainty associated with such products. Furthermore, this study found that consumers travelling overseas tend to disregard information concerning the natural content of products, potentially leading them to exhibit low SCB.

Additionally, to complement the findings of SEM, this study conducted a fsQCA analysis. This study found that consumers with environmental knowledge, a strong green self-identity, and a perception of natural content in products are more likely to experience hope in consuming sustainable products, leading them to exhibit SCB. Moreover, the absence of perceived greenwashing (the presence of transparent communication) strengthens their SCB.

6.2.1 Theoretical contributions

The study has made noteworthy theoretical contributions to the existing literature on SCB. First, the SLR in this study analysed the varied theoretical frameworks employed to study emotions in SCB. While scholars have relied on the theory of planned behaviour, stimulus-organism-response, and norm-related theoretical frameworks (Haj-Salem et al., 2022; Han et al., 2020; Kautish et al., 2023; Kumar et al., 2021), this thesis's SLR proposes the merging of two or more theoretical frameworks to provide more holistic insights into the role of emotions in SCB. Based on the results of an SLR, this research has applied the affect theory of social exchange and the broad-and-build theory of positive emotions that have not been used together in SCB literature. The employment of these theories has provided valuable insights into the

role of cognition-based affective factors, i.e., consumer hope, in motivating consumers to adopt SCB. The affect theory of social exchange explains how green self-identity and perceived natural content, along with inhibitors (i.e., perceived greenwashing), cultivate hope among consumers. Further, the broad-and-build theory of positive emotions explains how hope motivates consumers to find ways to consume sustainable products.

Second, given the fragmented and scattered nature of the literature on emotions in SCB, this study has conducted an SLR. The findings of an SLR reflect that the majority of the researchers focused on negative emotions (El-Haffar et al., 2020), while a few have focused on positive emotions, including pride and love (Jabeen et al., 2023; Kumar et al., 2021). However, the synthesis of SCB literature reveals that cognitive-based emotions, such as hope, are largely ignored. Therefore, this study contributed to the literature on consumer hope by extending its conceptualisation and application in the SCB research domain. The present study takes a different approach than earlier studies, which portrayed hope as a motivational force related to goals (Chen, Huebner, & Tian, 2020; Peng, Peng, Lei, & Liu, 2023; Zhong, Busser, Shapoval, & Murphy, 2021). In this study, hope is considered an emotion that arises from the perceived use of sustainable products, which differ from conventional products in terms of price and functionality. Thus, this construct's theoretical foundations and application differ from past research that predominantly defines hope as a combination of beliefs, cognitions, motivations, or a blend of these cognitive factors (Hu, Ye, & Im, 2021; Pleeging & Burger, 2020).

Third, the current research examines the understudied role of consumer goal attainment in consuming sustainable products. Although scholars in consumer behaviour research offer valuable insights about consumer goal attainment as an outcome of factors such as hope and behavioural customer engagement (Fazal-e-Hasan et al., 2020; Torkzadeh, Zolfagharian, Yazdanparast, & Gremler, 2022), there is limited literature available on consumer goal attainment’s interaction role with emotional factors to study consumer behaviour at the

consumption stage. Given that consumers engage with sustainable products beyond just the purchase phase, it is critical to comprehend how consumers' goals motivate them to consume sustainable products and improve the consumption experience. Additionally, unlike recent studies highlighting that consumers' goal interaction with emotion does not encourage them to exhibit consumption commitment (Fazal-e-Hasan et al., 2018), this research presents a significant and positive interaction effect of consumer goal attainment with consumer hope. It extends the scholarship on SCB by documenting that consumers tend to achieve their set goals of consuming sustainable products when hope is cultivated in them.

Fourth, this research also advances the literature on environmental knowledge, which is considered one of the significant factors that determine SCB (Dhir, Sadiq et al., 2021; Taufique et al., 2017; Yadav and Pathak, 2016), while a few studies have employed environmental knowledge as moderator to study the attitude-behaviour gap in SCB literature (e.g., Kumar et al., 2017; Mohd Suki & Mohd Suki, 2015; Sadiq et al., 2021). On the contrary, this study extended the literature on environmental knowledge by testing it as a moderator to cultivate hope for sustainable consumption. Specifically, it reflects that when firms provided information about the presence of natural ingredients and the availability of sustainable products, hope developed in such consumers.

Lastly, this study is one of the first to employ the SEM-fsQCA hybrid approach to understanding SCB. Researchers such as Khare and Kautish (2022) and Liu, Zhang, and Tang (2024) adopted the SEM-fsQCA approach to explain the clusters of consumers based on values-driven factors, while this study adopted the extended methodology to define the clusters based on emotional factors in SCB. Accordingly, the current research, using fsQCA, contributed to the SCB literature by proposing four different types of consumers based on their positive emotions and sustainable product preferences.

6.2.2 Managerial contributions

Besides its meaningful contribution to extant literature, this research has notable managerial implications for the sustainable product industry, particularly for policymakers and sustainable brand marketers. The insights obtained from this study can inform decision-making, aiding them in formulating effective strategies and interventions to boost the consumption of sustainable products.

First, fostering hope among consumers can be difficult and demands a well-thought-out strategy. This strategy requires a balance of consumer motivation and engagement to achieve effective results, such as consuming sustainable products. Brand managers should implement effective storytelling, be transparent in communication, and incorporate innovation in their products to achieve the set goals. For instance, Unilever's 'Seventh Generation' innovative products were launched to improve environmental quality, infusing hope among consumers towards their sustainable products. Similarly, Hewlett-Packard launched the "We Put Our Planet First" campaign to align their products with consumers' hopes for environmental sustainability by shifting to recycling and reusing products without compromising consumers' quality and social image expectations (Jack, 2024). This approach makes sustainable products more attractive to consumers.

Second, concerning the green self-identity, the extant literature suggests that self-identity among consumers to express themselves as green consumers is changeable and intricate, shifting from one perspective to another (Van Bavel & Packer, 2021). Thus, marketers or brand managers should draft innovative strategies highlighting the ease of environment-friendly activities, such as accepting sustainable products (Becerra et al., 2023). For example, Patagonia promotes its products by communicating its mission: "We're in business to save our home planet", reflecting the brand's intention to save the environment and motivate consumers to associate themselves with the brand (Thangavelu, 2024). Further, marketers and brand

managers should also associate themselves with sustainable brand ambassadors such as Lush to encourage self-identity and cultivate hope among consumers, as shown in this research.

Third, perceived greenwashing is a significant issue in the market (Apaolaza et al., 2023). This research observed a significant negative influence on consumer hope, highlighting that consumers who experienced greenwashing do not have hope or have less hope to consume sustainable products. Sustainable product marketers and brand managers are encouraged to enhance their brand authenticity and infuse consumer trust by highlighting their sustainable offerings. For example, firms like Coca-Cola and Nestle were criticised for their claims of using recycled packaging (Leggett & Edser, 2023). In response, both firms adopted a customer-centric communication strategy, consistently showcasing how their sustainable practices benefit the environment, contribute to consumers' well-being, and support global sustainability efforts. Similarly, Nike's continuous communication of its initiatives to move to zero carbon emissions strengthens trust and decreases the perception of greenwashing among consumers, which may cultivate hope for sustainable consumption.

Fourth, this study offers new insights related to the role of environmental knowledge in developing consumer hope in the SCB context. Marketers, brand managers, and policymakers are encouraged to prioritise the development of strategies aimed at enhancing consumers' environmental knowledge. Environmental knowledge and hope provide cognitive and emotional support to marketing managers when deciding sustainable brand strategies. For instance, knowledge, a cognitive construct, may help managers frame campaigns and communications and appeal positively to potential target markets. Similarly, spreading information and knowledge about the advantages of sustainable brands through positive messages, information, and incentives is a practical approach to encourage online forums or local groups to embrace sustainable behaviour. These strategies may include educating consumers through environmental campaigns on social media by marketers and manufacturers.

For example, Unilever, a multi-national fast-moving consumer goods company, launched an educational campaign, 'sustainable living plan', educating consumers about their contribution to achieving SDG 12 by reducing their carbon footprint (Arya, 2024). Further, brands like IKEA are implementing an "environmental management reporting system" to efficiently share information about the eco-labels and natural ingredients with potential and current consumers. These strategies may help sustainable product marketers cultivate hope among consumers by improving their environmental knowledge.

Fifth, this study identifies four different types of consumers based on their orientations toward the consumption of sustainable products. fsQCA results demonstrate that green self-identity is key in shaping consumers' sustainable consumption. Policymakers, managers, and marketers are advised to draft strategies focused on initiatives aimed at providing information about the natural content available in the products, reducing the perception of greenwashing, and encouraging consumers to demonstrate their identity as green consumers. For example, Tesla promotes transparency and environmental sustainability to motivate consumers to associate themselves with their eco-friendly brand. These associations help them to infuse hope in consumers regarding sustainable products. Additionally, brands such as Addidas collaborated with Parley for the Oceans to develop shoes from recycled ocean waste and motivate consumers to set goals for sustainable consumption. Therefore, marketers and policymakers are encouraged to draft strategies specifically to promote goal-setting for SCB.

Last, this study presents a new insight into consumers' preference for SCB while at home versus travelling overseas. The result indicates that consumers tend less to consume sustainable products while travelling than at home. Based on this finding, marketers, brand managers, and policy-makers are encouraged to promote more sustainable products among consumers at home, which may have a spillover effect on them while travelling overseas. Furthermore, the difference in SCB at home and while travelling suggests that environmental education

programmes at destinations are ineffective. Therefore, brands like Hilton Worldwide Holdings Inc. focus on providing the necessary infrastructure and required environmental knowledge to have a spillover effect on consumers while travelling effectively (Hilton, 2022). Additionally, marketers are suggested to advertise the monetary and functional benefits of consuming sustainable products in both contexts to increase the uptake of sustainable products. For example, Hilton Hotels incentivises their guests to participate in sustainable practices, leading to increased participation in eco-friendly activities at their properties.

6.3 Limitations and Future Research Directions

Although this research contributes valuable insights into the correlation between green self-identity, perceived natural content, perceived greenwashing, consumer hope, and SCB, it is essential to recognise and address specific limitations of the study. First, the centre of this research is to study the role of consumer hope in translating consumers' perception into SCB, leaving other potential factors influencing the emotion-behaviour relationship relatively unexplored. Therefore, future researchers are encouraged to consider social and contextual factors, such as trust, commitment, and social norms, in the existing research model that could significantly influence the relationship between consumer hope and SCB. Second, the survey was constrained by its concentration on consumers residing in Australia, a single geographical context. Future research endeavours could reproduce this study design to conduct cross-cultural investigations to cultivate consumer hope for sustainable consumption. Third, this study primarily centres on consumer hope as a positive emotion in the SCB domain, neglecting other positive emotions, such as gratitude, contentment, or serenity, which may also significantly influence SCB. This paves pathways for future research, where scholars may investigate the interplay of various emotions and their influence on SCB, offering a more nuanced understanding. Fourth, this study utilises a single cross-sectional survey to understand SCB. Future research should contemplate a longitudinal study to investigate the causality of

consumers' perceptions and emotional factors. Such an approach might offer further insights into the psychological mechanism of developing consumer hope, leading to SCB. Further, consumers tend to change their behaviour with time; therefore, longitudinal research concerning sustainable consumption's pre- and post-consumption stages may yield more insights (Sadiq et al., 2021).

Fifth, this study collected the data using a self-administered survey, which is highly vulnerable to social desirability problems and may restrict respondents from reflecting on their feelings and behaviour. Future researchers are suggested to adopt indirect and reverse-coded questions and assure respondents that their identity will be anonymous (Larson, 2019). These strategies would help reduce social desirability issues, a big challenge in sustainable consumption research.

Last, this study encourages future researchers to integrate contextual and social-based theories, such as attitude-behaviour-context theory (Guagnano et al., 1995), theory of social norms (Bicchieri, 2005), and theory of religiosity (Hirschman, 1983), with the existing research model to explain sustainable product consumption better.

6.4 Conclusion

Sustainable product consumption is one of the possible ways to mitigate the negative impact of unsustainable consumption behaviour. Consuming sustainable products underscores a dedication to eco-friendly practices and a health-conscious lifestyle. Despite this, the widespread embrace of sustainable products still faces hurdles, effectively demonstrating a gap between perceptions and behaviours. The current research focused on the mentioned gap by employing consumer hope with the help of the affect theory of social exchange and the broad-and-build theory of positive emotions. The research proposed one primary research question (i.e., what is the role of emotions in explaining SCB?). This study further categorised the

primary question into three nested research questions. The RQ1 focused on understanding the current state of the literature on the role of emotions in explaining SCB. RQ2 and RQ3 focused on identifying the appropriate factors that drive consumers towards SCB. An SLR was conducted to answer these nested research questions, wherein this study observed that positive emotions received less attention than negative emotions in SCB. Also, based on SLR findings, a fourth nested research question was proposed. This research developed a consumer hope model in the SCB context. This study analysed the conceptual model using the data from 584 respondents. Specifically, 298 were those consumers who consumed sustainable products at home, while the remaining 286 were those who consumed them while travelling overseas. The findings suggest that consumers' green self-identity is important in developing their hope for sustainable consumption. On the contrary, perceived greenwashing significantly inhibited hope for sustainable consumption.

Further, findings suggest that consumer hope significantly reduces the gap between perception and actual behaviour. Additionally, high environmental knowledge and high consumer goal attainment contributed to translating consumers' perceptions into SCB via consumer hope. This research expands the applicability of the affect theory of social exchange and the broad-and-build theory of positive emotions by incorporating cognitive perceptions (green self-identity, perceived natural content, and perceived greenwashing) and positive emotions (consumer hope) in the SCB context. Finally, this research is one of the first studies to employ the affect theory of social exchange and the broad-and-build theory of positive emotions to conceptualise the consumer hope model in SCB at home versus while travelling overseas context. It is also the first to investigate the moderating role of environmental knowledge on the relationships of consumer hope and its antecedents in the domain of SCB. Additionally, this research proposed implications that are valuable for guiding the future

research landscape in sustainable marketing and hold equal significance in formulating marketing strategies and public policies.

References

Abdel-Khalek, A., & Snyder, C. (2007). Correlates and predictors of an Arabic translation of the Snyder Hope Scale. *The Journal of Positive Psychology*, *2*(4), 228-235.

Acampora, A., Lucchetti, M. C., Merli, R., & Ali, F. (2022). The theoretical development and research methodology in green hotels research: A systematic literature review. *Journal of Hospitality and Tourism Management*, *51*, 512-528.

Adams, I., Hurst, K., & Sintov, N. D. (2020). Experienced guilt, but not pride, mediates the effect of feedback on pro-environmental behavior. *Journal of Environmental Psychology*, *71*, 101476.

Adil, M., Sadiq, M., Jebarajakirthy, C., Maseeh, H. I., Sangroya, D., & Bharti, K. (2022). Online service failure: antecedents, moderators and consequences. *Journal of Service Theory and Practice*, *32*(6), 797-842.

Ahn, J., & Kwon, J. (2020). Green hotel brands in Malaysia: Perceived value, cost, anticipated emotion, and revisit intention. *Current Issues in Tourism*, *23*(12), 1559-1574.

Aiken, L. R. (1980). Content validity and reliability of single items or questionnaires. *Educational and psychological measurement*, *40*(4), 955-959.

Aitken, R., Watkins, L., Williams, J., & Kean, A. (2020). The positive role of labelling on consumers' perceived behavioural control and intention to purchase organic food. *Journal of Cleaner Production*, *255*, 120334.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Akarsu, T. N., Marvi, R., & Foroudi, P. (2023). Service failure research in the hospitality and tourism industry: a synopsis of past, present and future dynamics from 2001 to 2020. *International Journal of Contemporary Hospitality Management*, *35*(1), 186-217.

Akehurst, G., Afonso, C., & Gonçalves, H. M. (2012). Re-examining green purchase behaviour and the green consumer profile: new evidences. *Management Decision*, *50*(5), 972-988.

Akhshik, A., Ozturen, A., & Rezapouraghdam, H. (2021). A passionate travel to mind green turtles—Unpacking the complexity of visitors' green behaviour. *International Journal of Tourism Research*, *23*(3), 301-318.

Alarcon, G. M., Bowling, N. A., & Khazon, S. (2013). Great expectations: A meta-analytic examination of optimism and hope. *Personality and Individual Differences*, *54*(7), 821-827.

Alcock, I., White, M. P., Taylor, T., Coldwell, D. F., Gribble, M. O., Evans, K. L., ... & Fleming, L. E. (2017). 'Green'on the ground but not in the air: Pro-environmental attitudes are related to household behaviours but not discretionary air travel. *Global Environmental Change*, *42*, 136-147.

Ali, F., El-Manstrly, D., & Abbasi, G. A. (2023). Would you forgive me? From perceived justice and complaint handling to customer forgiveness and brand credibility-symmetrical and asymmetrical perspectives. *Journal of Business Research*, *166*, 114138.

Alrawad, M., Lutfi, A., Alyatama, S., Al Khattab, A., Alsoboa, S. S., Almaiah, M. A., ... & Al-Khasawneh, A. L. (2023). Assessing customers perception of online shopping risks: A structural equation modeling–based multigroup analysis. *Journal of Retailing and Consumer Services*, 71, 103188.

Alzubaidi, H., Slade, E. L., & Dwivedi, Y. K. (2021). Examining antecedents of consumers' pro-environmental behaviours: TPB extended with materialism and innovativeness. *Journal of Business Research, 122,* 685-699.

Amatulli, C., De Angelis, M., Peluso, A. M., Soscia, I., & Guido, G. (2019). The effect of negative message framing on green consumption: An investigation of the role of shame. *Journal of Business Ethics, 157,* 1111-1132.

Antonetti, P., & Maklan, S. (2014a). Exploring postconsumption guilt and pride in the context of sustainability. *Psychology & Marketing, 31*(9), 717-735.

Antonetti, P., & Maklan, S. (2014b). Feelings that make a difference: How guilt and pride convince consumers of the effectiveness of sustainable consumption choices. *Journal of Business Ethics, 124,* 117-134.

Apaolaza, V., Hartmann, P., D'Souza, C., & López, C. M. (2018). Eat organic–Feel good? The relationship between organic food consumption, health concern and subjective wellbeing. *Food Quality and Preference, 63,* 51-62.

Apaolaza, V., Policarpo, M. C., Hartmann, P., Paredes, M. R., & D'Souza, C. (2023). Sustainable clothing: Why conspicuous consumption and greenwashing matter. *Business Strategy and the Environment,* 32(6), 3766-3782.

ARABNEWS. (2023). Don't waste it: Kingdom launches new food security campaign. *Arab News*. https://www.arabnews.com/node/2274996/saudi-arabia

Arli, D., Tan, L. P., Tjiptono, F., & Yang, L. (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies, 42*(4), 389-401.

Arya (2024), Case study-Unilever's Sustainable Living Plan. Retrieved from: https://medium.com/@thisismayank/case-study-unilevers-sustainable-living-plan-2226b2e5d5f5 (Accessed on 7 August 2024).

Atwoli, L., Erhabor, G. E., Gbakima, A. A., Haileamlak, A., Kayembe Ntumba, J.-M., Kigera, J., Laybourn-Langton, L., Mash, B., Muhia, J., & Mulaudzi, F. M. (2022). COP27 Climate Change Conference: urgent action needed for Africa and the world: Wealthy nations must step up support for Africa and vulnerable countries in addressing past, present and future impacts of climate change. *Nutrition Reviews,* nuac093.

Aziz, R., & Rahman, Z. (2022). Brand hate: a literature review and future research agenda. *European Journal of Marketing*(ahead-of-print).

Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite reliability in structural equations modeling. *Educational and psychological measurement,* 55(3), 394-406.

Bahja, F., & Hancer, M. (2021). Eco-guilt in tourism: Do tourists intend to behave environmentally friendly and still revisit? *Journal of Destination Marketing & Management, 20,* 100602.

Bapat, D., & Khandelwal, R. (2023). Antecedents and consequences of consumer hope for digital payment apps services. *Journal of Services Marketing, 37*(1), 110-127.

Barbarossa, C., Beckmann, S. C., De Pelsmacker, P., Moons, I., & Gwozdz, W. (2015). A self-identity based model of electric car adoption intention: A cross-cultural comparative study. *Journal of Environmental Psychology, 42,* 149-160.

Barbarossa, C., & De Pelsmacker, P. (2016). Positive and negative antecedents of purchasing eco-friendly products: A comparison between green and non-green consumers. *Journal of Business Ethics, 134,* 229-247.

Barbarossa, C., De Pelsmacker, P., & Moons, I. (2017). Personal values, green self-identity and electric car adoption. *Ecological Economics, 140,* 190-200.

Barber, N. A. (2014). Profiling the potential "green" hotel guest: Who are they and what do they want? *Journal of Hospitality & Tourism Research, 38*(3), 361-387.

Barber, N. A., & Deale, C. (2014). Tapping mindfulness to shape hotel guests' sustainable behavior. *Cornell Hospitality Quarterly*, *55*(1), 100-114.

Baron, & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Barreiro, C. A., & Treglown, L. (2020). What makes an engaged employee? A facet-level approach to trait emotional intelligence as a predictor of employee engagement. *Personality and Individual Differences*, *159*, 109892.

Becerra, E. P., Carrete, L., & Arroyo, P. (2023). A study of the antecedents and effects of green self-identity on green behavioral intentions of young adults. *Journal of Business Research*, 155, 113380.

Bentler, P. M. (1995). EQS structural equations program manual (Vol. 6). Encino, CA: Multivariate software.

Bergquist, M., Nyström, L., & Nilsson, A. (2020). Feeling or following? A field-experiment comparing social norms-based and emotions-based motives encouraging pro-environmental donations. *Journal of Consumer Behaviour*, *19*(4), 351-358.

Bernardo, A. B. (2010). Extending hope theory: Internal and external locus of trait hope. *Personality and Individual Differences*, *49*(8), 944-949.

Bharti, K., Jabeen, F., Sadiq, M., & Khan, F. (2022). Does External Attribution Motivate Pessimistic Consumers to Purchase Organic Cosmetics? *Australasian Marketing Journal*, 14413582221127319.

Bhattacharyya, J., Balaji, M. S., & Jiang, Y. (2023). Causal complexity of sustainable consumption: Unveiling the equifinal causes of purchase intentions of plant-based meat alternatives. *Journal of Business Research*, 156, 113511.

Bicchieri, C. (2005). *The grammar of society: The nature and dynamics of social norms*. Cambridge University Press.Bissing-Olson, M. J., Fielding, K. S., & Iyer, A. (2016). Experiences of pride, not guilt, predict pro-environmental behavior when pro-environmental descriptive norms are more positive. *Journal of Environmental Psychology*, *45*, 145-153.

Blose, J. E., Mack, R. W., & Pitts, R. E. (2015). The influence of message framing on hotel guests' linen-reuse intentions. *Cornell Hospitality Quarterly*, *56*(2), 145-154.

Bradley, G. L., Babutsidze, Z., Chai, A., & Reser, J. P. (2020). The role of climate change risk perception, response efficacy, and psychological adaptation in pro-environmental behavior: A two nation study. *Journal of Environmental Psychology*, *68*, 101410.

Bryman, A., & Bell, E. (2011). Ethics in business research. *Business Research Methods*, *7*(5), 23-56.

Burhanudin, B., Ronny, R., & Sihotang, E. T. (2021). Consumer guilt and green banking services. *International Journal of Consumer Studies*, *45*(1), 38-53.

Burmann, C., Schaefer, K., & Maloney, P. (2008). Industry image: Its impact on the brand image of potential employees. *Journal of brand management*, *15*, 157-176.

Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. Structural equation modeling, 11(2), 272-300.

Byrne, B. M. (2016). Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming (3rd ed.). New York: Routledge

Cappelli, P. (1991). The missing role of context in OB: The need for a meso-level approach. *Organizational Behavior*, *13*, 55-110.

Carrus, G., Passafaro, P., & Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviours: The case of recycling and use of public transportation. *Journal of Environmental Psychology*, *28*(1), 51-62.

Carvalho, S. W., Luna, D., & Goldsmith, E. (2019). The role of national identity in consumption: An integrative framework. *Journal of Business Research*, *103*, 310-318.

Cassidy, C. (2022, 16 June 2022). Switching to renewable energy: the rebates and incentives on offer to Australian households. *The Guardian*. https://www.theguardian.com/australia-news/2022/jun/16/switching-to-renewable-energy-the-rebates-and-incentives-on-offer-to-australian-households#:~:text=New%20solar%20customers&text=NSW%20is%20rolling%20out%20a,up%20to%20%24600%20a%20year.&text=Residents%20must%20be%20eligible%20for,for%20the%20next%2010%20years.

Cavanaugh, L. A., Bettman, J. R., & Luce, M. F. (2015). Feeling love and doing more for distant others: Specific positive emotions differentially affect prosocial consumption. *Journal of Marketing Research*, *52*(5), 657-673.

Chan, E. S.-w. (2014). Green marketing: Hotel customers' perspective. *Journal of Travel & Tourism Marketing*, *31*(8), 915-936.

Chan, R. Y. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing*, *18*(4), 389-413.

Chang, C.-T. (2012). Are guilt appeals a panacea in green advertising? The right formula of issue proximity and environmental consciousness. *International Journal of Advertising*, *31*(4), 741-771.

Chang, H. H., Lu, L. C., & Kuo, T. C. (2024). Are discounts useful in promoting suboptimal foods for sustainable consumption and production? The interaction effects of original prices, discount presentation modes, and product types. Journal of Retailing and Consumer Services, 79, 103881.

Chauhan, C., Parida, V., & Dhir, A. (2022). Linking circular economy and digitalisation technologies: A systematic literature review of past achievements and future promises. *Technological Forecasting and Social Change*, *177*, 121508.

Cheah, J. H., Amaro, S., & Roldán, J. L. (2023). Multigroup analysis of more than two groups in PLS-SEM: A review, illustration, and recommendations. *Journal of Business Research*, 156, 113539.

Chen, M.-F. (2016). Impact of fear appeals on pro-environmental behavior and crucial determinants. *International Journal of Advertising*, *35*(1), 74-92.

Chen, M. F. (2020). Selecting environmental psychology theories to predict people's consumption intention of locally produced organic foods. *International Journal of Consumer Studies*, *44*(5), 455-468.

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

Chen, Y., Ghosh, M., Liu, Y., & Zhao, L. (2019). Media coverage of climate change and sustainable product consumption: Evidence from the hybrid vehicle market. *Journal of Marketing Research*, *56*(6), 995-1011.

Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, *50*(3), 502-520.

Chen, L., Haider, M. J., & He, J. (2024). Should "green information" be interactive? The influence of green information presentation on consumers' green participation behavior for driving sustainable consumption of fashion brands. Journal of Cleaner Production, 470, 143329.

Chen, J., Huebner, E. S., & Tian, L. (2020). Longitudinal relations between hope and academic achievement in elementary school students: Behavioral engagement as a mediator. *Learning and Individual Differences*, 78, 101824.

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural equation modeling*, 9(2), 233-255.

Cheung, M. F., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, *50*, 145-153.

Chirilli, C., Molino, M., & Torri, L. (2022). Consumers' awareness, behavior and expectations for food packaging environmental sustainability: Influence of socio-demographic characteristics. *Foods*, 11(16), 2388.

Choi, D., & Johnson, K. K. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior. *Sustainable Production and Consumption*, *18*, 145-155.

Choi, T. R., Choi, J. H., & Sung, Y. (2019). I hope to protect myself from the threat: The impact of self-threat on prevention-versus promotion-focused hope. *Journal of Business Research*, *99*, 481-489.

Chouk, I., & Mani, Z. (2019). Factors for and against resistance to smart services: role of consumer lifestyle and ecosystem related variables. *Journal of Services Marketing*, *33*(4), 449-462.

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 16(1), 64-73.

Clark, E., Mulgrew, K., Kannis-Dymand, L., Schaffer, V., & Hoberg, R. (2019). Theory of planned behaviour: Predicting tourists' pro-environmental intentions after a humpback whale encounter. *Journal of Sustainable Tourism*, *27*(5), 649-667.

Cobanoglu, C., Cavusoglu, M., & Turktarhan, G. (2021). A beginner's guide and best practices for using crowdsourcing platforms for survey research: The Case of Amazon Mechanical Turk (MTurk). *Journal of Global Business Insights*, *6*(1), 92-97.

Coelho, F., Pereira, M. C., Cruz, L., Simões, P., & Barata, E. (2017). Affect and the adoption of pro-environmental behaviour: A structural model. *Journal of Environmental Psychology*, *54*, 127-138.

Coleman, J. T., Royne, M. B., & Pounders, K. R. (2020). Pride, guilt, and self-regulation in cause-related marketing advertisements. *Journal of Advertising*, *49*(1), 34-60.

Collins. (2003). Pretesting survey instruments: An overview of cognitive methods. *Quality of Life Research*, *12*, 229-238.

Confente, I., Scarpi, D., & Russo, I. (2020). Marketing a new generation of bio-plastics products for a circular economy: The role of green self-identity, self-congruity, and perceived value. *Journal of Business Research*, *112*, 431-439.

Cowan, K., & Kinley, T. (2014). Green spirit: Consumer empathies for green apparel. *International Journal of Consumer Studies*, *38*(5), 493-499.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

D'Souza, C., Apaolaza, V., Hartmann, P., & Brouwer, A. R. (2021). Marketing for sustainability: Travellers' intentions to stay in green hotels. *Journal of Vacation Marketing*, *27*(2), 187-202.

Dagher, G. K., & Itani, O. (2014). Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour*, *13*(3), 188-195.

Dangelico, R. M., & Pontrandolfo, P. (2010). From green product definitions and classifications to the Green Option Matrix. *Journal of cleaner production*, *18*(16-17), 1608-1628.

Dash, G., & Paul, J. (2021). CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting. *Technological Forecasting and Social Change*, *173*, 121092.

de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. d. L. (2020). Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*, *32*(1), 1-12.

de-Magistris, T., & Gracia, A. (2016). Consumers' willingness-to-pay for sustainable food products: the case of organically and locally grown almonds in Spain. *Journal of Cleaner Production*, 118, 97-104.

Dharmesti, M., Merrilees, B., & Winata, L. (2020). "I'm mindfully green": Examining the determinants of guest pro-environmental behaviors (PEB) in hotels. *Journal of Hospitality Marketing & Management*, *29*(7), 830-847.

Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2021). Why do retail consumers buy green apparel? A knowledge-attitude-behaviour-context perspective. *Journal of Retailing and Consumer Services*, *59*, 102398.

Dhir, A., Talwar, S., Sadiq, M., Sakashita, M., & Kaur, P. (2021). Green apparel buying behaviour: A Stimulus–Organism–Behaviour–Consequence (SOBC) perspective on sustainability-oriented consumption in Japan. *Business Strategy and the Environment*, *30*(8), 3589-3605.

Dolnicar, S., & Grün, B. (2009). Environmentally friendly behavior: Can heterogeneity among individuals and contexts/environments be harvested for improved sustainable management?. *Environment and behavior*, *41*(5), 693-714.

Dogra, N., Adil, M., Sadiq, M., Dash, G., & Paul, J. (2023). Unraveling customer repurchase intention in OFDL context: An investigation using a hybrid technique of SEM and fsQCA. *Journal of Retailing and Consumer Services*, *72*, 103281.

Dong, X., & Geng, L. (2022). The role of mindfulness and meaning in life in adolescents' dispositional awe and life satisfaction: the broaden‐and‐build theory perspective. *Current Psychology*, 1-14.

Dong, X., Jiang, B., Zeng, H., & Kassoh, F. S. (2022). Impact of trust and knowledge in the food chain on motivation-behavior gap in green consumption. *Journal of Retailing and Consumer Services*, *66*, 102955.

Dong, X., Li, H., Liu, S., Cai, C., & Fan, X. (2018). How does material possession love influence sustainable consumption behavior towards the durable products? *Journal of Cleaner Production*, *198*, 389-400.

Dong, X., Liu, S., Li, H., Yang, Z., Liang, S., & Deng, N. (2020). Love of nature as a mediator between connectedness to nature and sustainable consumption behavior. *Journal of Cleaner Production*, *242*, 118451.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285-296.

Elgaaied, L. (2012). Exploring the role of anticipated guilt on pro-environmental behavior–a suggested typology of residents in France based on their recycling patterns. *Journal of Consumer Marketing*.

ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, *275*, 122556.

Ellen, P., Eroglu, D., & Webb, D. (1997). Consumer judgments in a changing information environment: how consumers respond to 'green marketing'claims. *Georgia State University*.

Elliot, A. J., & McGregor, H. A. (2001). A 2× 2 achievement goal framework. *Journal of personality and social psychology*, *80*(3), 501.

Elliot, A. J., & Murayama, K. (2008). On the measurement of achievement goals: critique, illustration, and application. *Journal of educational psychology*, *100*(3), 613.

Erul, E., Woosnam, K. M., & McIntosh, W. A. (2020). Considering emotional solidarity and the theory of planned behavior in explaining behavioral intentions to support tourism development. *Journal of Sustainable Tourism*, *28*(8), 1158-1173.

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet research*, *15*(2), 195-219.

Fazal-e-Hasan, S. M., Adil, M., Ahmadi, H., Abid, M., Sadiq, M., Mortimer, G., & Amrollahi, A. (2025). Fostering Love for Innovative Sustainable Brands: A Multi-Study, Multi-Method Approach. Journal of Consumer Behaviour.

Fazal-e-Hasan, S. M., Ahmadi, H., Kelly, L., & Lings, I. N. (2019). The role of brand innovativeness and customer hope in developing online repurchase intentions. *Journal of brand management*, *26*, 85-98.

Fazal-e-Hasan, S. M., Ahmadi, H., Mortimer, G., Grimmer, M., & Kelly, L. (2018). Examining the role of consumer hope in explaining the impact of perceived brand value on customer–brand relationship outcomes in an online retailing environment. *Journal of Retailing and Consumer Services*, *41*, 101-111.

Fazal-E-Hasan, S. M., Ahmadi, H., Mortimer, G., Lings, I., Kelly, L., & Kim, H. (2020). Online repurchasing: The role of information disclosure, hope, and goal attainment. *Journal of Consumer Affairs*, 54(1), 198-226.

Fazal-e-Hasan, S. M., Ahmadi, H., Sekhon, H., Mortimer, G., Sadiq, M., Kharouf, H., & Abid, M. (2023). The role of green innovation and hope in employee retention. *Business Strategy and the Environment*, *32*(1), 220-239.

Fazal-e-Hasan, S. M., Mortimer, G., Ahmadi, H., Abid, M., Farooque, O., & Amrollahi, A. (2024). How tourists' negative and positive emotions motivate their intentions to reduce food waste. Journal of Sustainable Tourism, 32(10), 2039-2059.

Feber, D., , Granskog, A., , Lingqvist, O., , & Nordigården, D. (2020). *Sustainability in packaging: Inside the minds of US consumers*. Retrieved 24 April 2023 from https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/sustainability-in-packaging-inside-the-minds-of-us-consumers

Feldman, D. B., & Kubota, M. (2015). Hope, self-efficacy, optimism, and academic achievement: Distinguishing constructs and levels of specificity in predicting college grade-point average. *Learning and Individual Differences*, 37, 210-216.

Fernandes, J., Segev, S., & Leopold, J. K. (2020). When consumers learn to spot deception in advertising: Testing a literacy intervention to combat greenwashing. *International Journal of Advertising*, *39*(7), 1115-1149.

Fial. (2021). *Reducing Australia's Food Waste by half by 2030*. Retrieved 1 May 2023 from https://www.fial.com.au/sharing-knowledge/food-waste

Flores, P. J., & Jansson, J. (2022). Being innovative, fun, and green? Hedonic and environmental motivations in the use of green innovations. *Journal of Marketing Management*, 1-30.

Forbes. (2019). *New Report Shows Sustainable Fashion Efforts are Decreasing*. Forbes. Retrieved 3 February 2023 from https://www.forbes.com/sites/kaleighmoore/2019/05/19/new-report-shows-sustainable-fashion-efforts-are-decreasing/?sh=6d97b4487a4f

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50.

Fragkaki, I., Maciejewski, D. F., Weijman, E. L., Feltes, J., & Cima, M. (2021). Human responses to Covid-19: The role of optimism bias, perceived severity, and anxiety. *Personality and Individual Differences*, *176*, 110781.

Fredrickson, B. L. (2004). The broaden–and–build theory of positive emotions. *Philosophical transactions of the royal society of London. Series B: Biological Sciences*, *359*(1449), 1367-1377.

Gallagher, M. W., Smith, L. J., Richardson, A. L., D'Souza, J. M., & Long, L. J. (2021). Examining the longitudinal effects and potential mechanisms of hope on COVID-19 stress, anxiety, and well-being. *Cognitive Behaviour Therapy*, *50*(3), 234-245.

Ganglmair-Wooliscroft, A., & Wooliscroft, B. (2016). Diffusion of innovation: The case of ethical tourism behavior. *Journal of Business Research*, *69*(8), 2711-2720.

Ganglmair-Wooliscroft, A., & Wooliscroft, B. (2017). Ethical behaviour on holiday and at home: Combining behaviour in two contexts. *Journal of Sustainable Tourism*, *25*(4), 589-604.

Ganglmair-Wooliscroft, A., & Wooliscroft, B. (2022). An investigation of sustainable consumption behavior systems–Exploring personal and socio-structural characteristics in different national contexts. *Journal of Business Research*, *148*, 161-173.

Gaskin, J., (2016). Testing multi-group moderation using chi-square difference test.

Gaskination's StatWiki. Available online: http://statwiki.gaskination.com. (Accessed 10 March 2024).

Genç, E., & Arslan, G. (2021). Optimism and dispositional hope to promote college students' subjective well-being in the context of the COVID-19 pandemic. *Journal of Positive School Psychology*, *5*(2), 87-96.

George, D., & Mallery, P. (1999). SPSS® for Windows® step by step: A simple guide and reference: Allyn & Bacon.

Ghazali, E. M., Nguyen, B., Mutum, D. S., & Yap, S.-F. (2019). Pro-environmental behaviours and Value-Belief-Norm theory: Assessing unobserved heterogeneity of two ethnic groups. *Sustainability*, *11*(12), 3237.

Goenka, S., & Van Osselaer, S. M. (2019). Charities can increase the effectiveness of donation appeals by using a morally congruent positive emotion. *Journal of Consumer Research*, *46*(4), 774-790.

Goh, S. K., & Balaji, M. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, *131*, 629-638.

Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*, *35*(3), 472-482

Goodman, F. R., Doorley, J. D., & Kashdan, T. B. (2018). Well-being and psychopathology: A deep exploration into positive emotions, meaning and purpose in life, and social relationships. *Handbook of well-being. Salt Lake City, UT: DEF Publishers. DOI: nobascholar. com*.

Gopalakrishnan, S., & Ganeshkumar, P. (2013). Systematic reviews and meta-analysis: understanding the best evidence in primary healthcare. *Journal of family medicine and primary care*, *2*(1), 9.

Grappi, S., Bergianti, F., Gabrielli, V., & Baghi, I. (2024). The effect of message framing on young adult consumers' sustainable fashion consumption: The role of anticipated emotions and perceived ethicality. Journal of Business Research, 170, 114341

Graton, A., Ric, F., & Gonzalez, E. (2016). Reparation or reactance? The influence of guilt on reaction to persuasive communication. *Journal of Experimental Social Psychology, 62*, 40-49.

Greer, K., Turco, K., & Wallace, D. (2022). CFOs Create Value for Climate Adaptation & Resilience in Agency Operations. *The Journal of Government Financial Management*, *70*(4), 26-31.

Guagnano, G. A., Stern, P. C., & Dietz, T. (1995). Influences on attitude-behavior relationships: A natural experiment with curbside recycling. *Environment and behavior*, *27*(5), 699-718.

Guyader, H., Ottosson, M., & Witell, L. (2017). You can't buy what you can't see: Retailer practices to increase the green premium. *Journal of Retailing and Consumer Services*, *34*, 319-325.

Hair, Black, W., Babin, B., Anderson, R., & Tatham, R. (2014). Multivariate Data Analysis , Edinburgh Gate Harlow. In: Pearson Education, UK.

Haj-Salem, N., Ishaq, M. I., & Raza, A. (2022). How anticipated pride and guilt influence green consumption in the Middle East: The moderating role of environmental consciousness. *Journal of Retailing and Consumer Services*, *68*, 103062.

Hamzah, M. I., & Tanwir, N. S. (2021). Do pro-environmental factors lead to purchase intention of hybrid vehicles? The moderating effects of environmental knowledge. *Journal of Cleaner Production*, *279*, 123643.

Han, H. (2021). Consumer behavior and environmental sustainability in tourism and hospitality: A review of theories, concepts, and latest research. *Journal of Sustainable Tourism*, *29*(7), 1021-1042.

Han, H., Hwang, J., & Lee, M. J. (2017). The value–belief–emotion–norm model: Investigating customers' eco-friendly behavior. *Journal of Travel & Tourism Marketing*, *34*(5), 590-607.

Han, H., & Hyun, S. S. (2018). What influences water conservation and towel reuse practices of hotel guests? *Tourism Management*, *64*, 87-97.

Han, H., Kim, W., & Lee, S. (2018). Stimulating visitors' goal-directed behavior for environmentally responsible museums: Testing the role of moderator variables. *Journal of Destination Marketing & Management*, *8*, 290-300.

Han, H., Moon, H., & Hyun, S. S. (2020). Uncovering the determinants of pro-environmental consumption for green hotels and green restaurants: A mixed-method approach. *International Journal of Contemporary Hospitality Management*, *32*(4), 1581-1603.

Han, H., Olya, H. G., Kim, J., & Kim, W. (2018). Model of sustainable behavior: Assessing cognitive, emotional and normative influence in the cruise context. *Business Strategy and the Environment*, *27*(7), 789-800.

Hartmann, P., Apaolaza, V., & Eisend, M. (2016). Nature imagery in non-green advertising: The effects of emotion, autobiographical memory, and consumer's green traits. *Journal of advertising*, *45*(4), 427-440.

Hastings, G., Stead, M., & Webb, J. (2004). Fear appeals in social marketing: Strategic and ethical reasons for concern. *Psychology & Marketing*, *21*(11), 961-986.

Hayes. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

He, J., Cai, X., Li, G., Zou, X., & Morrison, A. M. (2022). Volunteering and pro-environmental behavior: the relationships of meaningfulness and emotions in protected areas. *Journal of Sustainable Tourism*, 1-18.

Hempel, C., & Roosen, J. (2022). The role of life satisfaction and locus of control in changing purchase intentions for organic and local food during the pandemic. *Food Quality and Preference*, *96*, 104430.

Henseler, Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial management & data systems*, *116*(1), 2-20.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43, 115-135.

Herzberg, F. (1959). Two-factor theory of motivation. *Motivation theory*, 1-3.

Hilton (2022). Travel with purpose Hilton 2022 Enviromental, Social, and Governance report. Retreived from https://esg.hilton.com/wp-content/uploads/sites/4/2023/04/Hilton-2022-Environmental-Social-and-Governance-Report.pdf (Accessed on 7 August 2024)

Hirschman, E. C. (1983). Religious affiliation and consumption processes: an initial paradigm. *Research in marketing*, *6*(1), 131-170.

Hockenbury, D. H., & Hockenbury, S. E. (2010). *Discovering psychology*. Macmillan.

Hoek, A., Pearson, D., James, S., Lawrence, M., & Friel, S. (2017). Shrinking the food-print: A qualitative study into consumer perceptions, experiences and attitudes towards healthy and environmentally friendly food behaviours. *Appetite*, *108*, 117-131.

Holmes, M. R., Dodds, R., & Frochot, I. (2021). At home or abroad, does our behavior change? Examining how everyday behavior influences sustainable travel behavior and tourist clusters. *Journal of Travel Research*, *60*(1), 102-116.

Horiuchi, R., Schuchard, R., Shea, L., & Townsend, S. (2009). Understanding and preventing greenwash: A business guide. *London: Futerra Sustainability Communications*, 1-39.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, 3(4), 424.

Hu, Y., Ye, B., & Im, H. (2021). Hope and post-stress growth during COVID-19 pandemic: The mediating role of perceived stress and the moderating role of empathy. *Personality and Individual Differences*, 178, 110831.

Hua, Y., & Dong, F. (2022). Can environmental responsibility bridge the intention-behavior gap? Conditional process model based on valence theory and the theory of planned behavior. *Journal of cleaner production*, *376*, 134166.

Huang, S.-C., & Zhang, Y. (2011). Motivational consequences of perceived velocity in consumer goal pursuit. *Journal of Marketing Research*, *48*(6), 1045-1056.

Hur, M., Nasar, J. L., & Chun, B. (2010). Neighborhood satisfaction, physical and perceived naturalness and openness. *Journal of Environmental Psychology*, *30*(1), 52-59.

Hurst, K. F., & Sintov, N. D. (2022). Guilt consistently motivates pro-environmental outcomes while pride depends on context. *Journal of Environmental Psychology*, *80*, 101776.

Ilieva, Baron, S., & Healey, N. M. (2002). Online surveys in marketing research: Pros and cons. *International Journal of Market Research*, *44*(3), 361-376.

Ilyuk, V., Block, L., & Haws, K. L. (2019). Justifying by "healthifying": When expected satisfaction from consumption closure increases the desire to eat more and biases health perceptions of unhealthy leftovers. *Appetite*, *133*, 138-146.

Ioannou, I., Kassinis, G., & Papagiannakis, G. (2022). The impact of perceived greenwashing on customer satisfaction and the contingent role of capability reputation. *Journal of Business Ethics*, 1-15.

Jack (2024), HP Sustainability Campaign "We Put our Planet First". Retrieved from: https://workingnotworking.com/projects/282452-hp-sustainability-campaign-we-put-our-planet-first (Accessed on 5 August 2024)

Jacobs, T. P., & McConnell, A. R. (2022). Self-transcendent emotion dispositions: Greater connections with nature and more sustainable behavior. *Journal of Environmental Psychology*, *81*, 101797.

Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services, 41*, 60-69.

Jebarajakirthy, C., Maseeh, H. I., Morshed, Z., Shankar, A., Arli, D., & Pentecost, R. (2021). Mobile advertising: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, *45*(6), 1258-1291.

Jiang, X., Ding, Z., Li, X., Sun, J., Jiang, Y., Liu, R., Wang, D., Wang, Y., & Sun, W. (2020). How cultural values and anticipated guilt matter in Chinese residents' intention of low carbon consuming behavior. *Journal of Cleaner Production, 246*, 119069.

Jiang, K., Zheng, J., & Luo, S. (2024). Green power of virtual influencer: The role of virtual influencer image, emotional appeal, and product involvement. Journal of Retailing and Consumer Services, 77, 103660.

Jordan, P. J., & Troth, A. C. (2020). Common method bias in applied settings: The dilemma of researching in organizations. *Australian Journal of Management*, 45(1), 3-14.

Jöreskog, K. G., & Sörbom, D. (1993). LISREL 8: Structural equation modeling with the SIMPLIS command language. Scientific software international.

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

Juvan, E., & Dolnicar, S. (2014). The attitude–behaviour gap in sustainable tourism. *Annals of tourism research, 48*, 76-95.

Juvan, E., & Dolnicar, S. (2016). Measuring environmentally sustainable tourist behaviour. *Annals of Tourism Research*, *59*, 30-44.

Juvan, E., & Dolnicar, S. (2017). Drivers of pro-environmental tourist behaviours are not universal. *Journal of Cleaner Production, 166*, 879-890.

Kadic-Maglajlic, S., Arslanagic-Kalajdzic, M., Micevski, M., Dlacic, J., & Zabkar, V. (2019). Being engaged is a good thing: Understanding sustainable consumption behavior among young adults. *Journal of Business Research*, *104*, 644-654.

Kaida, N., & Kaida, K. (2019). Positive associations of optimism–pessimism orientation with pro-environmental behavior and subjective well-being: A longitudinal study on quality of life and everyday behavior. *Quality of Life Research*, *28*, 3323-3332.

Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of advanced nursing*, *72*(12), 2954-2965.

Kang, J., & Hustvedt, G. (2014). Building trust between consumers and corporations: The role of consumer perceptions of transparency and social responsibility. *Journal of Business Ethics*, *125*, 253-265.

Kapoor, P. S., Balaji, M., & Jiang, Y. (2023). Greenfluencers as agents of social change: the effectiveness of sponsored messages in driving sustainable consumption. *European Journal of Marketing*, *57*(2), 533-561.

Kareklas, I., Carlson, J. R., & Muehling, D. D. (2014). "I eat organic for my benefit and yours": Egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. *Journal of advertising*, *43*(1), 18-32.

Katt, F., & Meixner, O. (2020). A systematic review of drivers influencing consumer willingness to pay for organic food. *Trends in Food Science & Technology*, *100*, 374-388.

Kaur, T., & Luchs, M. G. (2022). Mindfulness enhances the values that promote sustainable consumption. *Psychology & Marketing*, *39*(5), 990-1006.

Kautish, P., Paul, J., & Sharma, R. (2019). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal of Cleaner Production*, *228*, 1425-1436.

Kautish, P., Purohit, S., Filieri, R., & Dwivedi, Y. K. (2023). Examining the role of consumer motivations to use voice assistants for fashion shopping: The mediating role of awe experience and eWOM. *Technological Forecasting and Social Change, 190*, 122407.

Kehr, H. M. (2003). Goal conflicts, attainment of new goals, and well-being among managers. *Journal of occupational health psychology*, *8*(3), 195.

Kelberer, L. J., Kraines, M. A., & Wells, T. T. (2018). Optimism, hope, and attention for emotional stimuli. *Personality and Individual Differences*, *124*, 84-90.

Khalil, M., Northey, G., Septianto, F., & Lang, B. (2022). Hopefully that's not wasted! The role of hope for reducing food waste. *Journal of Business Research, 147*, 59-70.

Khan, & Adil, M. (2013). Data analysis techniques in service quality literature: Essentials and advances. *Serbian Journal of Management*, *8*(1), 95-112.

Khare, A. (2015). Antecedents to green buying behaviour: a study on consumers in an emerging economy. *Marketing Intelligence & Planning*, *33*(3), 309-329.

Khare, A., & Kautish, P. (2022). Antecedents to green apparel purchase behavior of Indian consumers. *Journal of Global Scholars of Marketing Science*, 32(2), 222-251.

Khare, A., & Pandey, S. (2017). Role of green self-identity and peer influence in fostering trust towards organic food retailers. *International Journal of Retail & Distribution Management*, *45*(9), 969-990.

Kier, A. S., & McMullen, J. S. (2018). Entrepreneurial imaginativeness in new venture ideation. *Academy of Management Journal*, *61*(6), 2265-2295.

Kim, M. J., Bonn, M., & Hall, C. M. (2022). Traveler biosecurity behavior during the COVID-19 pandemic: Effects of intervention, resilience, and sustainable development goals. *Journal of Travel Research*, *61*(7), 1599-1618.

Kim, M., & Koo, D.-W. (2020). Visitors' pro-environmental behavior and the underlying motivations for natural environment: Merging dual concern theory and attachment theory. *Journal of Retailing and Consumer Services*, *56*, 102147.

Kim, M. J., & Hall, C. M. (2021). Do perceived risk and intervention affect crowdfunder behavior for the sustainable development goals? A model of goal-directed behavior. *Journal of Cleaner Production*, *311*, 127614.

Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior. *International Journal of Hospitality Management*, *34*, 255-262.

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American journal of health-system pharmacy*, *65*(23), 2276-2284.

King, S., & Boxall, N. J. (2019). Lithium battery recycling in Australia: defining the status and identifying opportunities for the development of a new industry. *Journal of Cleaner Production*, *215*, 1279-1287.

Kirmani, M. D., Uddin, S. F., Sadiq, M. A., Ahmad, A., & Haque, M. A. (2023). Food-leftover sharing intentions of consumers: An extension of the theory of planned behavior. *Journal of Retailing and Consumer Services, 73*, 103328.

Kleinginna, P. R., & Kleinginna, A. M. (1981). A categorized list of emotion definitions, with suggestions for a consensual definition. *Motivation and emotion*, *5*, 345-379.

Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. Journal of psychoeducational assessment, 16(4), 343-364.

Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling. The SAGE handbook of innovation in social research methods, 562-589.

Kline, P. (2014). *An easy guide to factor analysis*. Routledge.

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.

Ko, H. C. (2018). Social desire or commercial desire? The factors driving social sharing and shopping intentions on social commerce platforms. *Electronic Commerce Research and Applications*, *28*, 1-15.

Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. Tourism Management, 86, 104330.

Kopplin, C. S., & Rösch, S. F. (2021). Equifinal causes of sustainable clothing purchase behavior: An fsQCA analysis among generation Y. Journal of Retailing and Consumer Services, 63, 102692.

Krettenauer, T., Wang, W., Jia, F., & Yao, Y. (2020). Connectedness with nature and the decline of pro-environmental behavior in adolescence: A comparison of Canada and China. *Journal of Environmental Psychology*, *71*, 101348.

Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: a literature review. *Quality & quantity*, *47*(4), 2025-2047.

Kumar, B., Manrai, A. K., & Manrai, L. A. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *Journal of Retailing and Consumer Services*, *34*, 1-9.

Kumar, P. (2023). Effects of in-store information quality and store credibility on consumer engagement in green retailing. *Journal of Retailing and Consumer Services*, *71*, 103195.

Kumar, S., Dhir, A., Talwar, S., Chakraborty, D., & Kaur, P. (2021). What drives brand love for natural products? The moderating role of household size. *Journal of Retailing and Consumer Services*, *58*, 102329.

Kumar, S., Sahoo, S., Lim, W. M., Kraus, S., & Bamel, U. (2022). Fuzzy-set qualitative comparative analysis (fsQCA) in business and management research: A contemporary overview. *Technological Forecasting and Social Change*, 178, 121599.

Kumari, R., Verma, R., Debata, B. R., & Ting, H. (2022). A systematic literature review on the enablers of green marketing adoption: Consumer perspective. *Journal of Cleaner Production*, 132852.

Kushwah, S., Dhir, A., & Sagar, M. (2019). Ethical consumption intentions and choice behavior towards organic food. Moderation role of buying and environmental concerns. *Journal of Cleaner Production*, *236*, 117519.

Kushwah, S., Dhir, A., Sagar, M., & Gupta, B. (2019). Determinants of organic food consumption. A systematic literature review on motives and barriers. *Appetite*, *143*, 104402.

Lacasse, K. (2016). Don't be satisfied, identify! Strengthening positive spillover by connecting pro-environmental behaviors to an "environmentalist" label. *Journal of Environmental Psychology*, *48*, 149-158.

Lange, F., & Dewitte, S. (2021). Test-retest reliability and construct validity of the Pro-Environmental Behavior Task. *Journal of Environmental Psychology*, *73*, 101550.

Larson, R. B. (2019). Controlling social desirability bias. *International Journal of Market Research*, *61*(5), 534-547.

Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, *43*, 253-261.

Lavuri, R. (2022). Organic green purchasing: Moderation of environmental protection emotion and price sensitivity. *Journal of Cleaner Production*, *368*, 133113.

Lawler, E. J. (2001). An affect theory of social exchange. *American journal of sociology*, *107*(2), 321-352.

Lawler, E. J., Thye, S. R., & Yoon, J. (2008). Social exchange and micro social order. *American sociological review*, *73*(4), 519-542.

Leary, R. B., Vann, R. J., Mittelstaedt, J. D., Murphy, P. E., & Sherry Jr, J. F. (2014). Changing the marketplace one behavior at a time: Perceived marketplace influence and sustainable consumption. *Journal of Business Research*, *67*(9), 1953-1958.

Lee, K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of Consumer Marketing*, *26*(2), 87-96.

Lee, Y.-K., Chang, C.-T., & Chen, P.-C. (2017). What sells better in green communications: Fear or hope?: It depends on whether the issue is global or local. *Journal of Advertising Research*, *57*(4), 379-396.

Lee, Y. K., Lee, C. K., Lee, W., & Ahmad, M. S. (2021). Do hedonic and utilitarian values increase pro-environmental behavior and support for festivals?. *Asia Pacific Journal of Tourism Research*, 26(8), 921-934.

Leggett, T., & Edser, N. (2023). Coca-Cola and Nestle accused of misleading eco claims. Retrieved from: https://www.bbc.com/news/business-67343893 (Accessed on 5 August 2024).

Leisen Pollack, B. (2021). Green service attributes and amplifiers of the warm emotions evoked by them. *Journal of Service Theory and Practice*, *31*(4), 512-533.

Liamputtong, P. (2020). *Qualitative research methods*.

Liang, A. R.-D., & Lim, W.-M. (2021). Why do consumers buy organic food? Results from an S–O–R model. *Asia Pacific Journal of Marketing and Logistics*, *33*(2), 394-415.

Liang, D., Hou, C., Jo, M.-S., & Sarigöllü, E. (2019). Pollution avoidance and green purchase: The role of moral emotions. *Journal of cleaner production*, *210*, 1301-1310.

Liang, J., & Guo, L. (2021). Gratitude and sustainable consumer behavior: A moderated mediation model of time discounting and connectedness to the future self. *Psychology & Marketing*, *38*(8), 1238-1249.

Lin, J., Lobo, A., & Leckie, C. (2017). The role of benefits and transparency in shaping consumers' green perceived value, self-brand connection and brand loyalty. *Journal of Retailing and Consumer Services*, *35*, 133-141.

Lin, Y.-T., MacInnis, D. J., & Eisingerich, A. B. (2020). Strong anxiety boosts new product adoption when hope is also strong. *Journal of Marketing*, *84*(5), 60-78.

Lindsay, E. K., & Creswell, J. D. (2019). Mindfulness, acceptance, and emotion regulation: Perspectives from Monitor and Acceptance Theory (MAT). *Current opinion in psychology*, *28*, 120-125.

Liu, S., Cheng, P., & Wu, Y. (2022). The negative influence of environmentally sustainable behavior on tourists. *Journal of Hospitality and Tourism Management*, *51*, 165-175.

Liu, Y., Zhang, J., & Tang, H. (2024). Deciphering the environmental values behind green purchasing: A mixed-method exploration through regression analysis and fuzzy set qualitative comparative analysis. *Journal of Cleaner Production*, 436, 140570.

Lockie, S., Lyons, K., Lawrence, G., & Grice, J. (2004). Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers. *Appetite*, *43*(2), 135-146.

Lu, I. R., & Kwan, E. (2023). An investigation of two remedial measures for retailers to address the impact of disease threat on sustainable consumption: A moderated moderated mediation model. *Journal of Retailing and Consumer Services*, *72*, 103254.

Ma, C., & Burton, M. (2016). Warm glow from green power: Evidence from Australian electricity consumers. *Journal of Environmental Economics and Management*, *78*, 106-120.

MacInnis, D. J., & De Mello, G. E. (2005). The concept of hope and its relevance to product evaluation and choice. *Journal of Marketing*, *69*(1), 1-14.

Mahasuweerachai, P., & Suttikun, C. (2022). The effect of green self-identity on perceived image, warm glow and willingness to purchase: A new generation's perspective towards eco-friendly restaurants. *Sustainability*, 14(17), 10539.

Malhotra. (2015). *Essentials of marketing research: A hands-on orientation*. Pearson Essex.

Malhotra, N. K., Schaller, T. K., & Patil, A. (2017). Common method variance in advertising research: When to be concerned and how to control for it. *Journal of Advertising*, 46(1), 193-212.

Malodia, S., Ferraris, A., Sakashita, M., Dhir, A., & Gavurova, B. (2023). Can Alexa serve customers better? AI-driven voice assistant service interactions. *Journal of Services Marketing*, *37*(1), 25-39.

Maloney, M. P., & Ward, M. P. (1973). Ecology: Let's hear from the people: An objective scale for the measurement of ecological attitudes and knowledge. *American psychologist*, *28*(7), 583.

Maltese, I., & Zamparini, L. (2023). Sustainable mobility choices at home and within destinations: A survey of young Italian tourists. *Research in Transportation Business & Management*, *48*, 100906.

Marselle, M. R., Irvine, K. N., Lorenzo-Arribas, A., & Warber, S. L. (2016). Does perceived restorativeness mediate the effects of perceived biodiversity and perceived naturalness on emotional well-being following group walks in nature? *Journal of Environmental Psychology*, *46*, 217-232.

Martínez, M. P., Cremasco, C. P., Gabriel Filho, L. R. A., Junior, S. S. B., Bednaski, A. V., Quevedo-Silva, F., ... & Padgett, R. C. M. L. (2020). Fuzzy inference system to study the behavior of the green consumer facing the perception of greenwashing. *Journal of cleaner production*, *242*, 116064.

Maruyama, N. U., Keith, S. J., & Woosnam, K. M. (2019). Incorporating emotion into social exchange: Considering distinct resident groups' attitudes towards ethnic neighborhood tourism in Osaka, Japan. *Journal of Sustainable Tourism*.

Maseeh, H. I., Sangroya, D., Jebarajakirthy, C., Adil, M., Kaur, J., Yadav, M. P., & Saha, R. (2022). Anti-consumption behavior: A meta-analytic integration of attitude behavior context theory and well-being theory. *Psychology & Marketing*, *39*(12), 2302-2327.

Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of advertising*, *43*(2), 115-127.

Mazaheri, E., Richard, M. O., & Laroche, M. (2012). The role of emotions in online consumer behavior: a comparison of search, experience, and credence services. *Journal of Services Marketing*.

McCarthy, B., & Liu, H. B. (2017). Food waste and the 'green'consumer. *Australasian Marketing Journal*, *25*(2), 126-132.

McNeill, L., & Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice. *International Journal of Consumer Studies*, *39*(3), 212-222.

McNeill, L., & Venter, B. (2019). Identity, self-concept and young women's engagement with collaborative, sustainable fashion consumption models. *International Journal of Consumer Studies*, *43*(4), 368-378.

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. the MIT Press.

Meng, B., & Choi, K. (2016). The role of authenticity in forming slow tourists' intentions: Developing an extended model of goal-directed behavior. *Tourism Management*, *57*, 397-410.

Meng, B., & Han, H. (2016). Effect of environmental perceptions on bicycle travelers' decision-making process: Developing an extended model of goal-directed behavior. *Asia Pacific Journal of Tourism Research*, *21*(11), 1184-1197.

Meng, B., Lee, M. J., Chua, B.-L., & Han, H. (2022). An integrated framework of behavioral reasoning theory, theory of planned behavior, moral norm and emotions for fostering hospitality/tourism employees' sustainable behaviors. *International Journal of Contemporary Hospitality Management*(ahead-of-print).

Mensah, K., Wieck, C., & Rudloff, B. (2024). Sustainable food consumption and Sustainable Development Goal 12: Conceptual challenges for monitoring and implementation. *Sustainable Development*, *32*(1), 1109-1119.

Miao, L., & Wei, W. (2013). Consumers' pro-environmental behavior and the underlying motivations: A comparison between household and hotel settings. *International Journal of Hospitality Management*, *32*, 102-112.

Miller, D., Merrilees, B., & Coghlan, A. (2015). Sustainable urban tourism: Understanding and developing visitor pro-environmental behaviours. *Journal of Sustainable Tourism*, *23*(1), 26-46.

Mishra, A., & Gupta, A. (2019). Green hotel servicescape: Attributes and unique experiences. *Current Issues in Tourism*, *22*(20), 2566-2578.

Mishra, S., Moharana, T. R., & Chatterjee, R. (2024). Exploring the role of self-conscious emotions between consumer minimalism and rental behavior. *Marketing Intelligence & Planning*, *42*(2), 262-283.

Mkono, M., & Hughes, K. (2020). Eco-guilt and eco-shame in tourism consumption contexts: Understanding the triggers and responses. *Journal of Sustainable Tourism*, *28*(8), 1223-1244.

Mody, M., Suess, C., & Lehto, X. (2019). Going back to its roots: can hospitableness provide hotels competitive advantage over the sharing economy?. *International Journal of Hospitality Management*, 76, 286-298.

Mohd Suki, N., & Mohd Suki, N. (2015). Consumers' environmental behaviour towards staying at a green hotel: Moderation of green hotel knowledge. *Management of Environmental Quality: An International Journal*, 26(1), 103-117.

Moghavvemi, S., Jaafar, N. I., Sulaiman, A., & Parveen Tajudeen, F. (2020). Feelings of guilt and pride: Consumer intention to buy LED lights. *Plos one*, *15*(6), e0234602.

Moon, H., Yoon, H. J., & Han, H. (2016). Role of airport physical environments in the satisfaction generation process: mediating the impact of traveller emotion. *Asia Pacific Journal of Tourism Research*, *21*(2), 193-211.

Moore, S. A., Dowdy, E., Nylund-Gibson, K., & Furlong, M. J. (2019). A latent transition analysis of the longitudinal stability of dual-factor mental health in adolescence. *Journal of school psychology*, *73*, 56-73.

Mostafa, M. M. (2007). A hierarchical analysis of the green consciousness of the Egyptian consumer. *Psychology & Marketing*, *24*(5), 445-473.

Muhammad, S., Ahmadi, H., Mortimer, G., Sekhon, H., Kharouf, H., & Jebarajakirthy, C. (2020). The interplay of positive and negative emotions to quit unhealthy consumption behaviors: Insights for social marketers. *Australasian Marketing Journal*, *28*(4), 349-360.

Muyan-Yılık, M., & Demir, A. (2020). A pathway towards subjective well-being for Turkish University students: The roles of dispositional Hope, cognitive flexibility, and coping strategies. *Journal of Happiness Studies*, *21*(6), 1945-1963.

Nagy, L. B., Lakner, Z., & Temesi, Á. (2022). Is it really organic? Credibility factors of organic food–A systematic review and bibliometric analysis. *Plos one*, *17*(4), e0266855.

Nallaperuma, K., Septianto, F., & Bandyopadhyay, A. (2022). Mixed emotional appeal enhances advertising effectiveness of pro-environmental luxury brands: the mediating role of cognitive flexibility. *Asia Pacific Journal of Marketing and Logistics*, *34*(1), 175-189.

Nascimento, J., & Loureiro, S. M. C. (2024). Understanding the desire for green consumption: Norms, emotions, and attitudes. *Journal of Business Research*, 178, 114675.

Nel, P., & Boshoff, A. (2014). Factorial invariance of the adult state hope scale. *SA Journal of Industrial Psychology*, *40*(1), 1-8.

Neugebauer, S., Bolz, M., Mankaa, R., & Traverso, M. (2020). How sustainable are sustainability conferences?–Comprehensive Life Cycle Assessment of an international conference series in Europe. *Journal of cleaner production*, *242*, 118516.

Neureiter, A., & Matthes, J. (2023). Comparing the effects of greenwashing claims in environmental airline advertising: perceived greenwashing, brand evaluation, and flight shame. *International Journal of Advertising*, *42*(3), 461-487.

Nguyen, T. N., Lobo, A., & Greenland, S. (2016). Pro-environmental purchase behaviour: The role of consumers' biospheric values. *Journal of Retailing and Consumer Services*, *33*, 98-108.

Nguyen, T. T. H., Yang, Z., Nguyen, N., Johnson, L. W., & Cao, T. K. (2019). Greenwash and green purchase intention: The mediating role of green skepticism. *Sustainability*, *11*(9), 2653.

Nimri, R., Patiar, A., & Jin, X. (2020). The determinants of consumers' intention of purchasing green hotel accommodation: Extending the theory of planned behaviour. *Journal of Hospitality and Tourism Management*, *45*, 535-543.

Orlowski, M., Shermadou, S., Lee, M., Hinson-Enslin, A., & Nahhas, R. W. (2022). Adolescent self-efficacy mediates the relationship between perceived parenting practices and fruit and vegetable consumption in the FLASHE study. *Health Education Journal*, *81*(7), 835-847.

Pahlevi, M. R., & Suhartanto, D. (2020). The integrated model of green loyalty: Evidence from eco-friendly plastic products. *Journal of Cleaner Production*, *257*, 120844.

Palmatier, R. W., Houston, M. B., & Hulland, J. (2018). Review articles: Purpose, process, and structure. In (Vol. 46, pp. 1-5): Springer.

Panda. (2022). *In many areas, Australia's temperate zones and coastal ecosystems have been extensively altered, many wetlands have been degraded.* Retrieved 1 May 2023 from https://wwf.panda.org/wwf_offices/australia/environmental_problems_in_australia/

Papista, E., & Dimitriadis, S. (2019). Consumer–green brand relationships: revisiting benefits, relationship quality and outcomes. *Journal of Product & Brand Management*.

Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Chrissikopoulos, V. (2014). Shiny happy people buying: the role of emotions on personalized e-shopping. *Electronic Markets*, *24*, 193-206.

Pappas, I. O., Papavlasopoulou, S., Mikalef, P., & Giannakos, M. N. (2020). Identifying the combinations of motivations and emotions for creating satisfied users in SNSs: An fsQCA approach. *International Journal of Information Management*, 53, 102128.

Pappas, I. O., & Woodside, A. G. (2021). Fuzzy-set Qualitative Comparative Analysis (fsQCA): Guidelines for research practice in Information Systems and marketing. *International Journal of Information Management*, 58, 102310.

Park, H. J., & Lin, L. M. (2020). Exploring attitude–behavior gap in sustainable consumption: Comparison of recycled and upcycled fashion products. *Journal of Business Research*, *117*, 623-628.

Parker, J. R., Paul, I., Hamilton, R., Rodriguez-Vila, O., & Bharadwaj, S. G. (2021). How Product Type and Organic Label Structure Combine to Influence Consumers' Evaluations of Organic Foods. *Journal of Public Policy & Marketing*, *40*(3), 419-428.

Paro, C. E., da Silva, H. M. R., Spers, E. E., Jugend, D., & Hamza, K. M. (2021). The technology effect, green consumption and age in propensity to collaborative consumption. *Cleaner and Responsible Consumption*, *2*, 100008.

Patel, J. D., Trivedi, R. H., & Yagnik, A. (2020). Self-identity and internal environmental locus of control: Comparing their influences on green purchase intentions in high-context versus low-context cultures. *Journal of Retailing and Consumer Services*, *53*, 102003.

Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, *29*(4), 101717.

Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, *45*(4), O1-O16.

Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of retailing and consumer services*, *29*, 123-134.

Pearce, J., Huang, S. S., Dowling, R. K., & Smith, A. J. (2022). Effects of social and personal norms, and connectedness to nature, on pro-environmental behavior: A study of Western Australian protected area visitors. *Tourism Management Perspectives*, *42*, 100966.

Peng, N. (2020). Luxury restaurants' risks when implementing new environmentally friendly programs–evidence from luxury restaurants in Taiwan. *International Journal of Contemporary Hospitality Management*, *32*(7), 2409-2427.

Peng, N., & Chen, A. (2019). Luxury hotels going green–the antecedents and consequences of consumer hesitation. *Journal of Sustainable Tourism*, *27*(9), 1374-1392.

Peng, S., Peng, R., Lei, H., & Liu, W. (2023). Family functioning and problematic behavior among secondary vocational school students: the mediating role of hope and the moderating role of perceived social support. *Personality and Individual Differences*, 207, 112156.

Perry's, C. (1998). A structured approach for presenting theses. *Australasian marketing journal (AMJ)*, *6*(1), 63-85.

Perry, C., Riege, A., & Brown, L. (1999). Realism's role among scientific paradigms in marketing research. *Irish Marketing Review*, *12*(2), 16-23.

Petruzzi, D. (2022). *Global market value of green packaging 2019 & 2025*. Statista. Retrieved 1 May 2023 from https://www.statista.com/statistics/829159/global-market-value-of-green-packaging/#:~:text=This%20statistic%20shows%20the%20estimated,billion%20U.S.%20dollars%20by%202025.

Pleeging, E., & Burger, M. (2020). Hope in economics. Historical and multidisciplinary perspectives on hope, 165.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.

Polonsky, M. J., Garma, R., & Landreth Grau, S. (2011). Western consumers' understanding of carbon offsets and its relationship to behavior. *Asia Pacific Journal of Marketing and Logistics*, *23*(5), 583-603.

Polonsky, M. J., Vocino, A., Grimmer, M., & Miles, M. P. (2014). The interrelationship between temporal and environmental orientation and pro-environmental consumer behaviour. *International Journal of Consumer Studies*, *38*(6), 612-619.

Pulido-Fernández, J. I., & López-Sánchez, Y. (2016). Are tourists really willing to pay more for sustainable destinations?. *Sustainability*, *8*(12), 1240.

Qiu, H., Wang, X., Wei, W., Morrison, A. M., & Wu, M.-Y. (2022). Breaking bad: how anticipated emotions and perceived severity shape tourist civility? *Journal of Sustainable Tourism*, 1-21.

Ragin, C. (2008). Evaluating set relations: Consistency and coverage. *Redesigning social inquiry: Fuzzy sets and beyond*, 44-68.

Ragin, C. C. (2006). Set relations in social research: Evaluating their consistency and coverage. *Political analysis*, *14*(3), 291-310.

Ragin, C. C., Drass, K. A., & Davey, S. (2006). Fuzzy-set/qualitative comparative analysis 2.0. Tucson, AZ: Department of Sociology, University of Arizona. Google Scholar.

Rambabu, L., Akram, U., & Akram, Z. (2023). Exploring the sustainable consumption behavior in emerging countries: The role of pro-environmental self-identity, attitude, and environmental protection emotion. *Business Strategy and the Environment*.

Ramchurjee, N. A., & Suresha, S. 2015). Are tourists' environmental behavior affected by their environmental perceptions and beliefs?. *JETA: Journal of Environmental & Tourism Analyses*, *3*(1).

Ramirez, E., Jiménez, F. R., & Gau, R. (2015). Concrete and abstract goals associated with the consumption of environmentally sustainable products. *European Journal of Marketing*, *49*(9/10), 1645-1665.

Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, *38*, 157-165.

Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, *26*(4), 332-344.

Rezvani, Z., Jansson, J., & Bengtsson, M. (2018). Consumer motivations for sustainable consumption: The interaction of gain, normative and hedonic motivations on electric vehicle adoption. *Business Strategy and the Environment*, *27*(8), 1272-1283.

Roberts, J. A. (1991). *Development of a profile of the socially responsible consumer for the 1990s and its marketing management and public policy implications*. The University of Nebraska-Lincoln.

Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, *36*(3), 217-231.

Roberts, J. A., & Bacon, D. R. (1997). Exploring the subtle relationships between environmental concern and ecologically conscious consumer behavior. *Journal of Business Research*, *40*(1), 79-89.

Roster, C. A., & Ferrari, J. R. (2023). Having less: A personal project taxonomy of consumers' decluttering orientations, motives and emotions. *Journal of Consumer Affairs*, *57*(1), 264-295.

Rowe, Z. O., Wilson, H. N., Dimitriu, R., Charnley, F. J., & Lastrucci, G. (2019). Pride in my past: Influencing sustainable choices through behavioral recall. *Psychology & Marketing*, *36*(4), 276-286.

Roy, S. K., Balaji, M. S., Quazi, A., & Quaddus, M. (2018). Predictors of customer acceptance of and resistance to smart technologies in the retail sector. *Journal of Retailing and Consumer Services*, 42, 147-160.

Rustam, A., Wang, Y., & Zameer, H. (2020). Environmental awareness, firm sustainability exposure and green consumption behaviors. *Journal of Cleaner Production*, *268*, 122016.

Sadiq, M. (2019). *Impact of consumer optimism and consumer pessimism on the adoption of pro-environmental consumption behaviour* University of Otago].

Sadiq, M., Bharti, K., Adil, M., & Singh, R. (2021). Why do consumers buy green apparel? The role of dispositional traits, environmental orientation, environmental knowledge, and monetary incentive. *Journal of Retailing and Consumer Services*, *62*, 102643.

Sadiq, M., Paul, J., & Bharti, K. (2020). Dispositional traits and organic food consumption. *Journal of Cleaner Production*, *266*, 121961.

Sahakian, M., Godin, L., & Courtin, I. (2020). Promoting 'pro','low', and 'no'meat consumption in Switzerland: The role of emotions in practices. *Appetite*, *150*, 104637.

Sahu, A. K., Padhy, R., & Dhir, A. (2020). Envisioning the future of behavioral decision-making: A systematic literature review of behavioral reasoning theory. *Australasian Marketing Journal*, *28*(4), 145-159.

Sajid, M., Zakkariya, K. A., Suki, N. M., & Islam, J. U. (2024). When going green goes wrong: The effects of greenwashing on brand avoidance and negative word-of-mouth. *Journal of Retailing and Consumer Services*, *78*, 103773.

Sala, S., & Castellani, V. (2019). The consumer footprint: Monitoring sustainable development goal 12 with process-based life cycle assessment. *Journal of Cleaner production*, *240*, 118050.

Saleem, M. S., Isha, A. S. N., Awan, M. I., Yusop, Y. B., & Naji, G. M. A. (2022). Fostering academic engagement in post-graduate students: assessing the role of positive emotions, positive psychology, and stress. *Frontiers in Psychology*, *13*.

Sana, Chakraborty, S., Adil, M., & Sadiq, M. (2023). Ecotourism experience: A systematic review and future research agenda. *International Journal of Consumer Studies*.

Santos-Corrada, M. D. L. M., Méndez-Tejeda, R., Flecha-Ortiz, J. A., & Lopez, E. (2024). An analysis of sustainable consumption practices through the role of the consumer behavior in the circular economy. *Journal of Consumer Behaviour*, *23*(1), 229-242.

Satta, G., Spinelli, R., & Parola, F. (2019). Is tourism going green? A literature review on green innovation for sustainable tourism. *Tourism Analysis*, *24*(3), 265-280.

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students (6. utg.). *Harlow: Pearson*.

Saunders, M., Lewis, P., & Thornhill, A. (2019). Research Methods for Business Students Eight Edition. *QualitativeMarket Research: An International Journal*.

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online*, 8(2), 23-74.

Schmitt, A. K., Grawe, A., & Woodside, A. G. (2017). Illustrating the power of fsQCA in explaining paradoxical consumer environmental orientations. *Psychology & Marketing*, 34(3), 323-334.

Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect–reason–involvement account of greenwashing effects in environmental advertising. *Journal of advertising*, *47*(2), 127-145.

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), e0188781.

Schwartz, S. H. (1977). Normative influences on altruism. In *Advances in experimental social psychology* (Vol. 10, pp. 221-279). Elsevier.

Sekaran, U. (2003). *Research Methods for Business: A Skill Building Approach*. John Wiley & Sons.

Semprebon, E., Mantovani, D., Demczuk, R., Souto Maior, C., & Vilasanti, V. (2019). Green consumption: A network analysis in marketing. *Marketing Intelligence & Planning*, *37*(1), 18-32.

Septianto, F., & Kemper, J. A. (2021). The effects of age cues on preferences for organic food: The moderating role of message claim. *Journal of Retailing and Consumer Services*, *62*, 102641.

Septianto, F., & Lee, M. S. (2020). Emotional responses to plastic waste: Matching image and message framing in encouraging consumers to reduce plastic consumption. *Australasian Marketing Journal*, *28*(1), 18-29.

Shao, W., Grace, D., & Ross, M. (2019). Consumer motivation and luxury consumption: Testing moderating effects. *Journal of Retailing and Consumer Services*, *46*, 33-44.

Sharma, & Jha, M. (2017). Values influencing sustainable consumption behaviour: Exploring the contextual relationship. *Journal of Business Research*, *76*, 77-88.

Sharma, A. P. (2021). Consumers' purchase behaviour and green marketing: A synthesis, review and agenda. *International Journal of Consumer Studies*, *45*(6), 1217-1238.

Sharma, K., Aswal, C., & Paul, J. (2022). Factors affecting green purchase behavior: A systematic literature review. *Business Strategy and the Environment*.

Sharma, N., & Paço, A. (2021). Moral disengagement: A guilt free mechanism for non-green buying behavior. *Journal of Cleaner Production*, *297*, 126649.

Sharma, N., Saha, R., Sreedharan, V. R., & Paul, J. (2020). Relating the role of green self-concepts and identity on green purchasing behaviour: An empirical analysis. *Business Strategy and the Environment*, *29*(8), 3203-3219.

Sharma, R., & Gupta, A. (2020). Pro-environmental behaviour among tourists visiting national parks: Application of value-belief-norm theory in an emerging economy context. *Asia Pacific Journal of Tourism Research*, *25*(8), 829-840.

Shimul, A. S., & Cheah, I. (2023). Consumers' preference for eco-friendly packaged products: pride vs guilt appeal. *Marketing Intelligence & Planning*, *41*(2), 186-198.

Shiu, E., Hair, J., Bush, R., & Ortinau, D. (2009). *Marketing Research, European Edition*. McGraw-Hill, Higher Education, London.

Sidique, S. F., Lupi, F., & Joshi, S. V. (2010). The effects of behavior and attitudes on drop-off recycling activities. *Resources, conservation and recycling*, *54*(3), 163-170.

Simmering, M. J., Fuller, C. M., Richardson, H. A., Ocal, Y., & Atinc, G. M. (2015). Marker variable choice, reporting, and interpretation in the detection of common method variance: A review and demonstration. *Organizational Research Methods*, 18(3), 473-511.

Sindhu, P., & Bharti, K. (2023). Influence of chatbots on purchase invtention in social commerce. *Behaviour & Information Technology*, 1-22.

Singh, S., & Gupta, A. (2021). An ISM modeling for factors affecting the purchase of green products. *Journal of Modelling in Management*, *16*(1), 103-123.

Singh, S., Paul, J., & Dhir, S. (2021). Innovation implementation in Asia-Pacific countries: a review and research agenda. *Asia Pacific Business Review*, *27*(2), 180-208.

Sirieix, L., Lála, J., & Kocmanová, K. (2017). Understanding the antecedents of consumers' attitudes towards doggy bags in restaurants: Concern about food waste, culture, norms and emotions. *Journal of Retailing and Consumer Services*, *34*, 153-158.

Sivapalan, A., von der Heidt, T., Scherrer, P., & Sorwar, G. (2021). A consumer values-based approach to enhancing green consumption. *Sustainable Production and Consumption*, *28*, 699-715.

Smith-Spangler, C., Brandeau, M. L., Hunter, G. E., Bavinger, J. C., Pearson, M., Eschbach, P. J., Sundaram, V., Liu, H., Schirmer, P., & Stave, C. (2012). Are organic foods safer or healthier than conventional alternatives? A systematic review. *Annals of internal medicine*, *157*(5), 348-366.

Smith, Roster, C. A., Golden, L. L., & Albaum, G. S. (2016). A multi-group analysis of online survey respondent data quality: Comparing a regular USA consumer panel to MTurk samples. *Journal of Business Research*, *69*(8), 3139-3148.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: development and validation of an individual-differences measure of hope. *Journal of personality and social psychology*, *60*(4), 570.

Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of personality and social psychology*, *70*(2), 321.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333-339.

Soesilo, P. K., Morrin, M. L., & Onuklu, N. N. Y. (2021). No longer green with envy: Objectifying and destroying negative consumer emotions. *Journal of Consumer Affairs*, *55*(3), 1111-1138.

Song, H. J., Lee, C.-K., Kang, S. K., & Boo, S.-j. (2012). The effect of environmentally friendly perceptions on festival visitors' decision-making process using an extended model of goal-directed behavior. *Tourism Management*, *33*(6), 1417-1428.

Souto Maior, C., Mantovani, D., Pinto, D. C., & Ferreira, M. B. (2022). Green pride in sustainable versus premium brand decisions. *Marketing Intelligence & Planning*, *40*(7), 821-836.

Sparks, P., & Shepherd, R. (1992). Self-identity and the theory of planned behavior: Assesing the role of identification with" green consumerism". *Social psychology quarterly*, 388-399.

Spielmann, N. (2021). Green is the new white: How virtue motivates green product purchase. *Journal of Business Ethics*, *173*, 759-776.

Sreen, N., Dhir, A., Talwar, S., Tan, T. M., & Alharbi, F. (2021). Behavioral reasoning perspectives to brand love toward natural products: Moderating role of environmental concern and household size. *Journal of Retailing and Consumer Services*, *61*, 102549.

Statista. (2022a). *Consumer shift towards buying sustainable products over the past five years 2022*. Retrieved 15 February 2024 from https://www.statista.com/statistics/1377869/global-shift-to-buying-sustainable-products/#:~:text=Sustainability%20premiums,for%20sustainably%20produced%20consumer%20goods.

Statista. (2022b). *Sustainable fashion worldwide - statistics & facts*. Retrieved 4 February 2023 from https://www.statista.com/topics/9543/sustainable-fashion-worldwide/

Statista. (2023a). *Consumer expectations of sustainable grocery product availability Australia 2022*. Retrieved 1 May 2023 from https://www.statista.com/statistics/1359966/australia-consumer-expectations-of-sustainable-grocery-product-availability/

Statista. (2023b). *Share of consumers who consider having sustainable products available as very important in Australia in 2022, by sector*. Retrieved 26 April 2023 from https://www.statista.com/statistics/1359939/australia-share-of-consumers-who-consider-having-sustainable-products-available-as-very-important-by-sector/#:~:text=A%20survey%20conducted%20in%202022,be%20very%20important%20among%20respondents.

Statista. (2024). *Number of international tourist arrivals worldwide from 1950 to 2023*. Retrieved 215 February 2024 from https://www.statista.com/statistics/209334/total-number-of-international-tourist-arrivals/

Steenkamp, J. B. E., & Maydeu-Olivares, A. (2021). An updated paradigm for evaluating measurement invariance incorporating common method variance and its assessment. *Journal of the Academy of Marketing Science*, 49, 5-29.

Steptoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: the food choice questionnaire. *Appetite*, *25*(3), 267-284.

Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of social issues*, *56*(3), 407-424.

Stevens, J. P. (2012). *Applied multivariate statistics for the social sciences*. Routledge.

Su, L., Swanson, S. R., Hsu, M., & Chen, X. (2017). How does perceived corporate social responsibility contribute to green consumer behavior of Chinese tourists: A hotel context. *International Journal of Contemporary Hospitality Management*.

Sukhu, A., Choi, H., Bujisic, M., & Bilgihan, A. (2019). Satisfaction and positive emotions: A comparison of the influence of hotel guests' beliefs and attitudes on their satisfaction and emotions. *International Journal of Hospitality Management*, *77*, 51-63.

Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2020). Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: Moderating roles of communication, satisfaction and trust in organic food consumption. *Food Quality and Preference*, *81*, 103838.

Sun, J. J., Bellezza, S., & Paharia, N. (2021). Buy less, buy luxury: Understanding and overcoming product durability neglect for sustainable consumption. *Journal of Marketing*, *85*(3), 28-43.

Szabo, S., & Webster, J. (2021). Perceived greenwashing: the effects of green marketing on environmental and product perceptions. *Journal of Business Ethics*, *171*, 719-739.

Talwar, M., Talwar, S., Kaur, P., Islam, A. N., & Dhir, A. (2021). Positive and negative word of mouth (WOM) are not necessarily opposites: A reappraisal using the dual factor theory. *Journal of Retailing and Consumer Services*, *63*, 102396.

Talwar, S., Jabeen, F., Tandon, A., Sakashita, M., & Dhir, A. (2021). What drives willingness to purchase and stated buying behavior toward organic food? A Stimulus–Organism–Behavior–Consequence (SOBC) perspective. *Journal of Cleaner Production*, *293*, 125882.

Talwar, S., Kaur, P., Kumar, S., Hossain, M., & Dhir, A. (2021). What determines a positive attitude towards natural food products? An expectancy theory approach. *Journal of Cleaner Production*, *327*, 129204.

Talwar, S., Kaur, P., Kumar, S., Salo, J., & Dhir, A. (2022). The balancing act: How do moral norms and anticipated pride drive food waste/reduction behaviour? *Journal of Retailing and Consumer Services*, *66*, 102901.

Talwar, S., Talwar, M., Kaur, P., & Dhir, A. (2020). Consumers' resistance to digital innovations: A systematic review and framework development. *Australasian Marketing Journal*, *28*(4), 286-299.

Tam, L., & Spanjol, J. (2012). When impediments make you jump rather than stumble: Regulatory nonfit, implementation intentions, and goal attainment. *Marketing Letters*, *23*, 93-107.

Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Behavioral reasoning perspectives on organic food purchase. *Appetite*, *154*, 104786.

Tandon, A., Jabeen, F., Talwar, S., Sakashita, M., & Dhir, A. (2021). Facilitators and inhibitors of organic food buying behavior. *Food Quality and Preference*, *88*, 104077.

Tandon, A., Kaur, P., Mäntymäki, M., & Dhir, A. (2021). Blockchain applications in management: A bibliometric analysis and literature review. *Technological Forecasting and Social Change*, *166*, 120649.

Tanford, S., Kim, M., & Kim, E. J. (2020). Priming social media and framing cause-related marketing to promote sustainable hotel choice. *Journal of Sustainable Tourism*, *28*(11), 1762-1781.

Tanveer, A., Zeng, S., Irfan, M., & Peng, R. (2021). Do perceived risk, perception of self-efficacy, and openness to technology matter for solar PV adoption? An application of the extended theory of planned behavior. *Energies*, *14*(16), 5008.

Tapia-Fonllem, C., Corral-Verdugo, V., Fraijo-Sing, B., & Durón-Ramos, M. F. (2013). Assessing sustainable behavior and its correlates: A measure of pro-ecological, frugal, altruistic and equitable actions. *Sustainability*, *5*(2), 711-723.

Tarditi, C., Hahnel, U. J., Jeanmonod, N., Sander, D., & Brosch, T. (2020). Affective dilemmas: The impact of trait affect and state emotion on sustainable consumption decisions in a social dilemma task. *Environment and Behavior*, *52*(1), 33-59.

Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *Journal of Cleaner Production*, *183*, 46-55.

Taufique, K. M. R., Vocino, A., & Polonsky, M. J. (2017). The influence of eco-label knowledge and trust on pro-environmental consumer behaviour in an emerging market. *Journal of Strategic Marketing*, *25*(7), 511-529.

Tawde, S., Kamath, R., & ShabbirHusain, R. V. (2023). 'Mind will not mind'–Decoding consumers' green intention-green purchase behavior gap via moderated mediation effects of implementation intentions and self-efficacy. *Journal of Cleaner Production*, 383, 135506.

Temerak, M. S., & El-Manstrly, D. (2019). The influence of goal attainment and switching costs on customers' staying intentions. *Journal of Retailing and Consumer Services*, *51*, 51-61.

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

Tezer, A., & Bodur, H. O. (2020). The greenconsumption effect: How using green products improves consumption experience. *Journal of Consumer Research*, *47*(1), 25-39.

Thangavelu, P. (2024). The Success of Patagonia's Marketing Strategy. Retrieved from: https://www.investopedia.com/articles/personal-finance/070715/success-patagonias-marketing-strategy.asp (Accessed on 5 August 2024).

Theotokis, A., & Manganari, E. (2015). The impact of choice architecture on sustainable consumer behavior: The role of guilt. *Journal of Business Ethics*, *131*, 423-437.

To, C. K., Au, J. S., & Kan, C. W. (2019). Uncovering business model innovation contexts: A comparative analysis by fsQCA methods. *Journal of Business Research*, 101, 783-796.

Torkzadeh, S., Zolfagharian, M., Yazdanparast, A., & Gremler, D. D. (2022). From customer readiness to customer retention: the mediating role of customer psychological and behavioral engagement. *European Journal of Marketing*, 56(7), 1799-1829.

Truelove, H. B., & Nugent, M. R. (2020). Straw wars: Pro-environmental spillover following a guilt appeal. *Journal of Environmental Psychology*, *72*, 101521.

Tseng, S. C., & Hung, S. W. (2013). A framework identifying the gaps between customers' expectations and their perceptions in green products. *Journal of cleaner production*, 59, 174-184.

UNEP. (2015). Retrieved 12 May 2023 from SCP indicators for the future SDGS Discussion Paper.

United Nations (2023). "The 17 goals", available at: https:// sdgs.un.org/goals(accessed 17 August 2024).

Untaru, E. N., Ispas, A., & Han, H. (2020). Exploring the synergy between customer home-based and hotel-based water consumption and conservation behaviors: An empirical approach. *Journal of Consumer Behaviour*, *19*(6), 542-555.

Urban, J., Bahník, Š., & Kohlová, M. B. (2019). Green consumption does not make people cheat: Three attempts to replicate moral licensing effect due to pro-environmental behavior. *Journal of Environmental Psychology*, *63*, 139-147.

Van Bavel, J., & Packer, D. J. (2021). The Power of Us: Harnessing Our Shared Identities for Personal and Collective Success. Hachette UK.

van Tonder, E., Fullerton, S., & de Beer, L. T. (2020). Cognitive and emotional factors contributing to green customer citizenship behaviours: a moderated mediation model. *Journal of Consumer Marketing*, *37*(6), 639-650.

Wang, H., & Lei, L. (2021). Proactive personality and job satisfaction: Social support and Hope as mediators. *Current Psychology*, 1-10.

Wang, L., Wang, Z. X., Zhang, Q., Jebbouri, A., & Wong, P. P. W. (2022). Consumers' intention to visit green hotels–a goal-framing theory perspective. *Journal of Sustainable Tourism*, *30*(8), 1837-1857.

Wang, J., Wang, S., Wang, H., Zhang, Z., & Ru, X. (2021). Examining when and how perceived sustainability-related climate influences pro-environmental behaviors of tourism destination residents in China. *Journal of Hospitality and Tourism Management*, *48*, 357-367.

Wang, J., & Wu, L. (2016). The impact of emotions on the intention of sustainable consumption choices: Evidence from a big city in an emerging country. *Journal of Cleaner Production*, *126*, 325-336.

Wang, Y., Xiang, D., Yang, Z., & Ma, S. S. (2019). Unraveling customer sustainable consumption behaviors in sharing economy: A socio-economic approach based on social exchange theory. *Journal of Cleaner Production*, *208*, 869-879.

Wastler, H. M., Bryan, A. O., & Bryan, C. J. (2022). Suicide attempts among adults denying active suicidal ideation: an examination of the relationship between suicidal thought content and suicidal behavior. *Journal of clinical psychology*, *78*(6), 1103-1117.

Weber, T., Hydock, C., Ding, W., Gardner, M., Jacob, P., Mandel, N., Sprott, D. E., & Van Steenburg, E. (2021). Political polarization: challenges, opportunities, and hope for consumer welfare, marketers, and public policy. *Journal of Public Policy & Marketing*, *40*(2), 184-205.

Weisstein, F. L., Song, L., Andersen, P., & Zhu, Y. (2017). Examining impacts of negative reviews and purchase goals on consumer purchase decision. *Journal of Retailing and Consumer Services*, *39*, 201-207.

Whelan, T., & Kronthal-Sacco, R. (2019). Research: Actually, Consumers Do Buy Sustainable Products, 2019. *Harvard Business Review. Available online: https://hbr. org/2019/06/research-actually-consumers-do-buy-sustainable-products (accessed on 26 July 2022)*.

White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, *83*(3), 22-49.

Wilson, A., & Laskey, N. (2003). Internet based marketing research: a serious alternative to traditional research methods? *Marketing Intelligence & Planning*, *21*(2), 79-84.

Wu, H.-C., & Cheng, C.-C. (2019). What drives green persistence intentions? *Asia Pacific Journal of Marketing and Logistics*, *31*(1), 157-183.

Wu, J. S., Font, X., & Liu, J. (2021). The elusive impact of pro-environmental intention on holiday on pro-environmental behaviour at home. *Tourism Management*, *85*, 104283.

Wymer, W., & Polonsky, M. J. (2015). The limitations and potentialities of green marketing. *Journal of Nonprofit & Public Sector Marketing*, *27*(3), 239-262.

Wynn, K. (2019). *Health and sustainability market could be worth $25 billion to Australian producers by 2030*. The Conversation. Retrieved 1 May 2023 from https://theconversation.com/health-and-sustainability-market-could-be-worth-25-billion-to-australian-producers-by-2030-122856#:~:text=The%20high%20rate%20of%20growth,compared%20with%208%25%20from%20mining.

Xie, C., Bagozzi, R. P., & Grønhaug, K. (2015). The role of moral emotions and individual differences in consumer responses to corporate green and non-green actions. *Journal of the academy of Marketing Science*, *43*, 333-356.

Yadav, R., Balaji, M., & Jebarajakirthy, C. (2019). How psychological and contextual factors contribute to travelers' propensity to choose green hotels? *International Journal of Hospitality Management*, *77*, 385-395.

Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, *135*, 732-739.

Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological economics*, *134*, 114-122.

Yang, D., Lu, Y., Zhu, W., & Su, C. (2015). Going green: How different advertising appeals impact green consumption behavior. *Journal of Business Research*, *68*(12), 2663-2675.

Yao, F. (2024). The power of coworkers: the incidental effect of workplace green behavior on green consumption. *Current Psychology*, *43*(7), 5921-5932.

Ye, J., Yao, Y., & Li, L. (2022). The more involved, the more willing to participate: An analysis of the internal mechanism of positive spillover effects of pro-environmental behaviors. *Journal of Cleaner Production*, *375*, 133959.

Yuan, R., Liu, M. J., & Blut, M. (2022). What's in it for you? Examining the roles of consumption values and Thaler's acquisition–transaction utility theory in Chinese consumers' green purchase intentions. *European Journal of Marketing*.

Zhang, C., Phang, C. W., Wu, Q., & Luo, X. (2017). Nonlinear effects of social connections and interactions on individual goal attainment and spending: Evidences from online gaming markets. *Journal of Marketing*, *81*(6), 132-155.

Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, *187*, 740-750.

Zhang, X., & Dong, F. (2020). Why do consumers make green purchase decisions? Insights from a systematic review. *International journal of environmental research and public health*, *17*(18), 6607.

Zhang, Y., & Huang, S.-C. (2010). How endowed versus earned progress affects consumer goal commitment and motivation. *Journal of Consumer Research*, *37*(4), 641-654.

Zhang, Y., Moyle, B. D., & Jin, X. (2018). Fostering visitors' pro-environmental behaviour in an urban park. *Asia Pacific Journal of Tourism Research*, *23*(7), 691-702.

Zhang, Y., & Wang, L. (2019). Influence of sustainable development by tourists' place emotion: Analysis of the multiply mediating effect of attitude. *Sustainability*, *11*(5), 1384.

Zhao, A. L., Dermody, J., Koenig-Lewis, N., & Hanmer-Lloyd, S. (2024). Cultivating sustainable consumption: The role of harmonious cultural values and pro-environmental self-identity. *Journal of Consumer Behaviour*, *23*(2), 1014-1031.

Zhao, X., Wang, X., & Ji, L. (2020). Evaluating the effect of anticipated emotion on forming environmentally responsible behavior in heritage tourism: Developing an extended model of norm activation theory. *Asia Pacific Journal of Tourism Research*, *25*(11), 1185-1198.

Zheng, D., Liang, Z., & Ritchie, B. W. (2020). Residents' social dilemma in sustainable heritage tourism: The role of social emotion, efficacy beliefs and temporal concerns. *Journal of Sustainable Tourism*, *28*(11), 1782-1804.

Zhong, Y., Busser, J., Shapoval, V., & Murphy, K. (2021). Hospitality and tourism student engagement and hope during the COVID-19 pandemic. *Journal of hospitality & tourism education*, 33(3), 194-206.

Appendix

Appendix 1: Reviewed Articles

S.N.	Authors (Year)	Title	Journal
1	Lockie *et al.*, (2004)	Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers	Appetite
2	Carrus *et al.*, (2008)	Emotions, habits and rational choices in ecological behaviours: The case of recycling and use of public transportation	Journal of Environmental Psychology
3	Chang (2012)	Are guilt appeals a panacea in green advertising? The right formula of issue proximity and environmental consciousness	International Journal of Advertising
4	Elgaaied (2012)	Exploring the role of anticipated guilt on pro-environmental behavior – a suggested typology of residents in France based on their recycling patterns	Journal of Consumer Marketing
5	Kim *et al.*, (2013)	Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behaviour	International Journal of Hospitality Management
6	Tapia-Fonllem *et al.*, (2013)	Assessing Sustainable Behavior and its Correlates: A Measure of Pro-Ecological, Frugal, Altruistic and Equitable Actions	Sustainability
7	Antonetti and Maklan (2014a)	Exploring Postconsumption Guilt and Pride in the Context of Sustainability	Psychology & Marketing
8	Antonetti and Maklan (2014b)	Feelings that Make a Difference: How Guilt and Pride Convince Consumers of the Effectiveness of Sustainable Consumption Choices	Journal of Business Ethics
9	Barber (2014)	Profiling the potential "green" hotel guest: who are they and what do they want?	Journal of Hospitality & Tourism Research
10	Barber and Deale (2014)	Tapping Mindfulness to Shape Hotel Guests' Sustainable Behavior	Cornell Hospitality Quarterly
11	Cowan and Kinley (2014)	Green spirit: consumer empathies for green apparel	International Journal of Consumer Studies
12	Matthes and Wonneberger (2014)	The Skeptical Green Consumer Revisited: Testing the Relationship Between Green Consumerism and Skepticism Toward Advertising	Journal of Advertising
13	Blose *et al.*, (2015)	The Influence of Message Framing on Hotel Guests' Linen-Reuse Intentions	Cornell Hospitality Quarterly
14	Theotokis and Manganari (2015)	The Impact of Choice Architecture on Sustainable Consumer Behavior: The Role of Guilt	Journal of Business Ethics

15	Xie *et al.*, (2015)	The role of moral emotions and individual differences in consumer responses to corporate green and non-green actions	Journal of Academy of Marketing Science
16	Yang *et al.*, (2015)	Going green: How different advertising appeals impact green consumption behavior	Journal of Business Research
17	Bissing-Olson *et al.*, (2016)	Experiences of pride, not guilt, predict pro-environmental behavior when pro-environmental descriptive norms are more positive	Journal of Environmental Psychology
18	Chen (2016)	Impact of fear appeals on pro-environmental behavior and crucial determinants	International Journal of Advertising
19	Graton *et al.*, (2016)	Reparation or reactance? The influence of guilt on reaction to persuasive communication	Journal of Experimental Social Psychology
20	Hartmann *et al.*, (2016)	Nature Imagery in Non-Green Advertising: The Effects of Emotion, Autobiographical Memory, and Consumer's Green Traits	Journal of Advertising
21	Lacasse (2016)	Don't be satisfied, identify! Strengthening positive spillover by connecting pro-environmental behaviors to an “environmentalist” label	Journal of Environmental Psychology
22	Meng and Han (2016)	Effect of environmental perceptions on bicycle travelers’ decision-making process: developing an extended model of goal-directed behavior	Asia Pacific Journal of Tourism Research
23	Moon *et al.*, (2016)	Role of Airport Physical Environments in the Satisfaction Generation Process: Mediating the Impact of Traveller Emotion	Asia Pacific Journal of Tourism Research
24	Wang and Wu (2016)	The impact of emotions on the intention of sustainable consumption choices: evidence from a big city in an emerging country	Journal of Cleaner Production
25	Han *et al.*, (2017)	The value–belief–emotion–norm model: investigating customers’ eco-friendly behavior	Journal of Travel and Tourism Marketing
26	Hoek *et al.*, (2017)	Shrinking the food-print: A qualitative study into consumer perceptions, experiences and attitudes towards healthy and environmentally friendly food behaviours	Appetite
27	Juvan and Dolnicar (2017)	Drivers of pro-environmental tourist behaviours are not universal	Journal of Cleaner Production
28	McCarthy and Liu (2017)	Food waste and the ‘green’ consumer	Australasian Marketing Journal
29	Sirieix *et al.*, (2017)	Understanding the antecedents of consumers' attitudes towards doggy bags in restaurants: Concern about food waste, culture, norms and emotions	Journal of Retailing and Consumer Services
30	Su *et al.*, (2017)	How does perceived corporate social responsibility contribute to green consumer behavior of Chinese tourists A hotel context	International Journal of Contemporary Hospitality Management
31	Dong *et al.*, (2018)	How does material possession love influence sustainable consumption behavior towards the durable products?	Journal of Cleaner Production

32	Han and Hyun (2018)	What influences water conservation and towel reuse practices of hotel guests?	Tourism Management
33	Han *et al.*, (2018)	Model of sustainable behavior: Assessing cognitive, emotional and normative influence in the cruise context	Business Strategy and the Environment
34	Han *et al.*, (2018)	Youth travelers and waste reduction behaviors while traveling to tourist destinations	Journal of Travel and Tourism Marketing
35	Rezvani *et al.*, (2018)	Consumer motivations for sustainable consumption: the interaction of gain, normative and hedonic motivations on electric vehicle adoption	Business Strategy and the Environment
36	Zhang *et al.*, (2018)	Fostering visitors' pro-environmental behaviour in an urban park	Asia Pacific Journal of Tourism Research
37	Ahn and Kwon (2019)	Green hotel brands in Malaysia: perceived value, cost, anticipated emotion, and revisit intention	Current Issues In Tourism
38	Amatulli *et al.*, (2019)	The Effect of Negative Message Framing on Green Consumption: An Investigation of the Role of Shame	Journal of Business Ethics
39	Kadic-Maglajlic *et al.*, (2019)	Being engaged is a good thing: Understanding sustainable consumption behavior among young adults	Journal of Business Research
40	Mishra and Gupta (2019)	Green hotel servicescape: attributes and unique experiences	Current Issues In Tourism
41	Papista and Dimitriadis (2019)	Consumer–green brand relationships: revisiting benefits, relationship quality and outcomes	Journal of Product & Brand Management
42	Rowe *et al.*, (2019)	Pride in my past: Influencing sustainable choices through behavioral recall	Psychology & Marketing
43	Sukhu *et al.*, (2019)	Satisfaction and positive emotions: A comparison of the influence of hotel guests' beliefs and attitudes on their satisfaction and emotions	International Journal of Hospitality Management
44	Wu and Cheng (2019)	What drives green persistence intentions?	Asia Pacific journal of Marketing and Logistics
45	Zhang and Wang (2019)	Influence of Sustainable Development by Tourists' Place Emotion: Analysis of the Multiply Mediating Effect of Attitude	Sustainability
46	Adams *et al.*, (2020)	Experienced guilt, but not pride, mediates the effect of feedback on pro-environmental behaviour	Journal of Environmental Psychology
47	Bergquist *et al.*, (2020)	Feeling or following? A field-experiment comparing social norms-based and emotions-based motives encouraging proenvironmental donations	Journal of Consumer Behaviour
48	Dong *et al.*, (2020)	Love of nature as a mediator between connectedness to nature and sustainable consumption behavior	Journal of Cleaner Production
49	Erul *et al.*, (2020)	Considering emotional solidarity and the theory of planned behavior in explaining behavioral intentions to support tourism development	Journal of Sustainable Tourism

50	Han *et al.,* (2020)	Uncovering the determinants of pro-environmental consumption for green hotels and green restaurants A mixed-method approach	International Journal of Contemporary Hospitality Management
51	Jiang *et al.,* (2020)	How cultural values and anticipated guilt matter in Chinese residents' intention of low carbon consuming behavior	Journal of Cleaner Production
52	Kim and Koo (2020)	Visitors' pro-environmental behavior and the underlying motivations for natural environment: Merging dual concern theory and attachment theory	Journal of Retailing and Consumer Services
53	Moghavvemi *et al.,* (2020)	Feelings of guilt and pride: Consumer intention to buy LED lights	PLOS ONE
54	Mkono and Hughes (2020)	Eco-guilt and eco-shame in tourism consumption contexts: understanding the triggers and responses	Journal of Sustainable Tourism
55	Sahakian *et al.,* (2020)	Promoting 'pro', 'low', and 'no' meat consumption in Switzerland: The role of emotions in practices	Appetite
56	Septianto and Lee (2020)	Emotional Responses to Plastic Waste: Matching Image and Message Framing in Encouraging Consumers to Reduce Plastic Consumption	Australasian Marketing Journal
57	Tanford *et al.,* (2020)	Priming social media and framing cause-related marketing to promote sustainable hotel choice	Journal of Sustainable Tourism
58	Tarditi *et al.,* (2020)	Affective Dilemmas: The Impact of Trait Affect and State Emotion on Sustainable Consumption Decisions in a Social Dilemma Task	Environment and Behavior
59	Tezer and Bodur (2020)	The Greenconsumption Effect: How Using Green Products Improves Consumption Experience	Journal of Consumer Research
60	Truelove and Nugent (2020)	Straw wars: Pro-environmental spillover following a guilt appeal	Journal of Environmental Psychology
61	Van Tonder *et al.,* (2020)	Cognitive and emotional factors contributing to green customer citizenship behaviours: a moderated mediation model	Journal of Consumer Marketing
62	Zhao *et al.,* (2020)	Evaluating the effect of anticipated emotion on forming environmentally responsible behavior in heritage tourism: developing an extended model of norm activation theory	Asia Pacific Journal of Tourism Research
63	Zheng *et al.,* (2020)	Residents' social dilemma in sustainable heritage tourism: the role of social emotion, efficacy beliefs and temporal concerns	Journal of Sustainable Tourism
64	Akhshik *et al.,* (2021)	A passionate travel to mind green turtles—Unpacking the complexity of visitors' green behaviour	International Journal of Tourism Research
65	Bahja and Hancer (2021)	Eco-guilt in tourism: Do tourists intend to behave environmentally friendly and still revisit?	Journal of Destination Marketing & Management

66	Burhanudin *et al.*, (2021)	Consumer guilt and green banking services	International Journal of Consumer Studies
67	Kumar *et al.*, (2021)	What drives brand love for natural products? The moderating role of household size	Journal of Retailing and Consumer Services
68	Leisen Pollack (2021)	Green service attributes and amplifiers of the warm emotions evoked by them	Journal of Service Theory and Practice
69	Liang and Guo (2021)	Gratitude and sustainable consumer behavior: A moderated mediation model of time discounting and connectedness to the future self	Psychology & Marketing
70	Septianto and Kemper (2021)	The effects of age cues on preferences for organic food: The moderating role of message claim	Journal of Retailing and Consumer Services
71	Septianto *et al.* (2021)	Distinct effects of pride and gratitude appeals on sustainable luxury brands.	Journal of Business Ethics
72	Sharma and Paço (2021)	Moral disengagement: A guilt free mechanism for non-green buying behavior	Journal of Cleaner Production
73	Soesilo *et al.*, (2021)	No longer green with envy: Objectifying and destroying negative consumer emotions	Journal of Consumer Affairs
74	Spielmann (2021)	Green is the New White: How Virtue Motivates Green Product Purchase	Journal of Business Ethics
75	Sreen *et al.* (2021)	Behavioral reasoning perspectives to brand love toward natural products: Moderating role of environmental concern and household size	Journal of Retailing and Consumer Services
76	Talwar *et al.* (2021)	What determines a positive attitude towards natural food products? An expectancy theory approach	Journal of Cleaner Production
77	Wang *et al.*, (2021)	Examining when and how perceived sustainability-related climate influences pro-environmental behaviors of tourism destination residents in China	Journal of Hospitality and Tourism Management
78	Culiberg *et al.* (2022)	The Role of Moral Foundations, Anticipated Guilt and Personal Responsibility in Predicting Anti‐consumption for Environmental Reasons	Journal of Business Ethics
79	Flores and Jansson (2022)	Being innovative, fun, and green? Hedonic and environmental motivations in the use of green innovations	Journal of Marketing Management
80	Haj-Salem *et al.*, (2022)	How anticipated pride and guilt influence green consumption in the Middle East: The moderating role of environmental consciousness	Journal of Retailing and Consumer Services
81	He *et al.*, (2022)	Volunteering and pro-environmental behavior: the relationships of meaningfulness and emotions in protected areas	Journal of Sustainable Tourism
82	Hurst and Sintov (2022)	Guilt consistently motivates pro-environmental outcomes while pride depends on context	Journal of Environmental Psychology
83	Jacobs and McConnell (2022)	Self-transcendent emotion dispositions: Greater connections with nature and more sustainable behavior	Journal of Environmental Psychology

84	Lavuri (2022)	Organic green purchasing: Moderation of environmental protection emotion and price sensitivity	Journal of Cleaner Production
85	Liu *et al.*, (2022)	The negative influence of environmentally sustainable behavior on tourists	Journal of Hospitality and Tourism Management
86	Nallaperuma *et al.*, (2022)	Mixed emotional appeal enhances advertising effectiveness of pro-environmental luxury brands: the mediating role of cognitive flexibility	Asia Pacific journal of Marketing and Logistics
87	Souto Maior *et al.*, (2022)	Green pride in sustainable versus premium brand decisions	Marketing Intelligence & Planning
88	Shimul and Cheah (2022)	Consumers' preference for eco-friendly packaged products: pride vs guilt appeal	Marketing Intelligence & Planning
89	Talwar *et al.*, (2022)	The balancing act: How do moral norms and anticipated pride drive food waste/reduction behaviour?	Journal of Retailing and Consumer Services
90	Wang *et al.*, (2022)	Impact of ambivalent attitudes on green purchase intentions: The role of negative moods	International Journal of Consumer Studies
91	Wang et al., (2022)	Impact of empathy with nature on pro-environmental behaviour	International Journal of Consumer Studies
91	Ye *et al.*, (2022)	The more involved, the more willing to participate: An analysis of the internal mechanism of positive spillover effects of pro-environmental behaviors	Journal of Cleaner Production
92	Bhattacharyya *et al.* (2023)	Causal complexity of sustainable consumption: Unveiling the equifinal causes of purchase intentions of plant-based meat alternatives	Journal of Business Research
93	Bläse *et al.* (2023)	Non-sustainable buying behavior: How the fear of missing out drives purchase intentions in the fast fashion industry	Business Strategy and the Environment
94	Chao and Yu (2023)	How emotions and green altruism explain consumer purchase intention toward circular economy products: A multi-group analysis on willingness to be environmentally friendly	Business Strategy and the Environment
95	Chen and Peng (2023)	Antecedents to Consumers' Green Hotel Stay Purchase Behavior during the COVID-19 Pandemic: The influence of green consumption value, emotional ambivalence, and consumers' perceptions	Tourism Management Perspectives
96	Chou *et al.* (2023)	When feeling good counts! Impact of consumer gratitude and life satisfaction in access-based services	European Journal of Marketing
97	Hu and Dang-Van (2023)	Emotional and behavioral responses of consumers toward the indoor environmental quality of green luxury hotels	Journal of Hospitality and Tourism Management
98	Hu and Meng (2023)	Digital literacy and green consumption behavior: Exploring dual psychological mechanisms	Journal of Consumer Behaviour
99	Jabeen et al. (2023)	Emotions and food waste behavior: Do habit and facilitating	Journal of Business Research

		conditions matter?	
100	Kapoor *et al.* (2023)	Greenfluencers as agents of social change: the effectiveness of sponsored messages in driving sustainable consumption	European Journal of Marketing
101	Kautish et al. (2023)	Environmental values and sustainability: Mediating role of nature connectedness, and love for nature toward vegan food consumption	Journal of Consumer Behaviour
102	Kumar and Utkarsh (2023)	Effects of in-store information quality and store credibility on consumer engagement in green retailing	Journal of Retailing and Consumer Services
103	Lavuri at al. (2023a)	Exploring the sustainable consumption behavior in emerging countries: The role of pro-environmental self-identity, attitude, and environmental protection emotion	Business Strategy and the Environment
104	Lavuri et al. (2023b)	Sustainable consumption behaviour: Mediating role of pro-environment self-identity, attitude, and moderation role of environmental protection emotion	Journal of Environmental Management
105	Lu and Kwan (2023)	An investigation of two remedial measures for retailers to address the impact of disease threat on sustainable consumption: A moderated moderated mediation model	Journal of Retailing and Consumer Services
106	Qiu *et al.*, (2023)	Breaking bad: how anticipated emotions and perceived severity shape tourist civility?	Journal of Sustainable Tourism
107	Raza *et al.* (2023)	Effects of hotels' corporate social responsibility (CSR) initiatives on green consumer behavior: Investigating the roles of consumer engagement, positive emotions, and altruistic values	Journal of Hospitality Marketing & Management
108	Roster and Ferrari (2023)	Having less: A personal project taxonomy of consumers' decluttering orientations, motives and emotions	Journal of Consumer Affairs
109	Yang *et al.* (2023)	Achieving sustainability: Determinants of conscious green purchasing behavior during the COVID-19 pandemic	Business Strategy and the Environment
110	Zhang et al. (2023)	The impact of financial scarcity on green consumption: Sequential mediating effects of anxiety and self-efficacy	Psychology & Marketing
111	Zhao et al. (2023)	Beauty and tourists' sustainable behaviour in rural tourism: a self-transcendent emotions perspective	Journal of Sustainable Tourism
112	Chang et al. (2024)	Are discounts useful in promoting suboptimal foods for sustainable consumption and production? The interaction effects of original prices, discount presentation modes, and product types.	Journal of Retailing and Consumer Services
113	Chen et al. (2024)	Should "green information" be interactive? The influence of green information presentation on consumers' green participation behavior for driving sustainable consumption of fashion brands.	Journal of Cleaner Production

114	Fazal-e-Hasan et al. (2024)	How tourists' negative and positive emotions motivate their intentions to reduce food waste	Journal of Sustainable Tourism
115	Grappi et al. (2024)	The effect of message framing on young adult consumers' sustainable fashion consumption: The role of anticipated emotions and perceived ethicality.	Journal of Business Research
116	Jiang et al. (2024)	Green power of virtual influencer: The role of virtual influencer image, emotional appeal, and product involvement.	Journal of Retailing and Consumer Services
117	Lagomarsino and Lemarie (2024)	Hope for the environment: Influence of goal and temporal focus of emotions on behavior	International Journal of Consumer Studies
118	Maduku (2024)	How environmental concerns influence consumers' anticipated emotions towards sustainable consumption: The moderating role of regulatory focus	Journal of Retailing and Consumer Services
119	Mishra et al. (2024)	Exploring the role of self-conscious emotions between consumer minimalism and rental behavior	Marketing Intelligence & Planning
120	Nascimento and Loureiro (2024)	Understanding the desire for green consumption: Norms, emotions, and attitudes.	Journal of Business Research
121	Van Tran et al. (2024)	Fostering green customer citizenship behavioral intentions through green hotel practices: the roles of pride, moral elevation, and hotel star ratings	Journal of Sustainable Tourism
122	Yan *et al.* (2024)	Feeling the values: How pride and awe differentially enhance consumers' sustainable behavioral intentions	Journal of the Academy of Marketing Science
123	Fazal-e-Hasan et al. (2025)	Fostering Love for Innovative Sustainable Brands: A Multi-Study, Multi-Method Approach.	Journal of Consumer Behaviour.

Based on Google Scholar (28/03/2025)

Appendix II

Survey Instrument

Information Sheet

Please read the information carefully before deciding whether or not to participate.

-If you decide to participate, we thank you. If you decide not to participate, there will be no disadvantage to you, and we thank you for considering our request.

-This project (2023-3220N) is being undertaken as part of the requirements for a Doctor of Philosophy degree at Australian Catholic University, Australia. In this project we aim to examine the role of positive emotions (consumer hope) in motivating consumers to purchase the sustainable product. This research also investigates the influence of consumer perceptions on emotions in context of sustainable consumption.

-The survey includes questions about your sustainable consumption experience.

Please note: You can withdraw from the participation at any stage without any consequences. The publications or reports resulted from this study will ensure your anonymity. Demographic information will only be used in aggregate form. In line with Australian Catholic University regulations, the raw data on which the results of the project are based will be retained in secure storage for at least 15 years. The results of the project may be published and will be available in the Australian Catholic University (Australia).

If you have any questions about our project, either now or in the future, please feel free to contact: -

Dr. Syed Fazal-e-Hasan (Chief Investigator),

Peter Faber Business School, Australian Catholic University, Sydney,

Email: syed.fazal-e-hasan@acu.edu.au

Professor Susan Dann (Co-Investigator)

Peter Faber Business School, Australian Catholic University, Brisbane

Email: susan.dann@acu.edu.au

Dr. Samantha Murdy (Co-investigator)

Peter Faber Business School, Australian Catholic University, Brisbane

Email: samantha.murdy@acu.edu.au

Associate Professor Hormoz Ahmadi (Co-Investigator)

La Trobe Business School, La Trobe University, Melbourne

Email: H.ahmadi@latrobe.edu.au

Mohd Sadiq (Student Investigator)

Peter Faber Business School, Australian Catholic University, Sydney

Email: mohd.sadiq@myacu.edu.au

If you agree and wish to participate in this survey, click "Yes".

-Yes

-No

Screening Questions
SQ1) Have you bought any sustainable products/services in the last year? This can include organic foods (such as fruits, vegetables, coffee, or tea), eco-friendly cosmetics and clothing, as well as eco-friendly restaurants and travel destinations. -Yes -No SQ2) What type of sustainable products/services did you purchase recently? -Organic food (e.g., organic fruits and vegetables, organic coffee or tea) -Eco-friendly cosmetics -Eco-friendly apparels

-Eco-friendly destinations and restaurants
-Eco-friendly appliances
-Other (Please specify)
SQ3) Have you bought any sustainable products from any of the below mentioned areas in the past?
-Bought the sustainable products while travelling overseas
-Bought the sustainable products from Australia
-Both options
-None of the above

A- Overseas Travellers

Please think of the sustainable products that you have purchased overseas (i.e., outside of Australia). You will be asked a series of questions related to your perception of sustainable products. Please indicate the extent to which you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I think of myself as someone concerned about environmental issues.	□	□	□	□	□	□	□
2	I think of myself as a 'green' consumer.	□	□	□	□	□	□	□
3	Buying sustainable products would make me feel like a green consumer.	□	□	□	□	□	□	□
4	I would feel totally satisfied with myself if I bought sustainable products.	□	□	□	□	□	□	□
5	I believe that sustainable products do not contain any additives.	□	□	□	□	□	□	□
6	I believe that sustainable products do contain natural ingredients.	□	□	□	□	□	□	□
7	I believe that sustainable products do not contain any artificial ingredients.	□	□	□	□	□	□	□
8	I believe that sustainable products do not contain any chemical hormone residues.	□	□	□	□	□	□	□
9	I think I have achieved my goal by purchasing a sustainable product.	□	□	□	□	□	□	□

10	I think purchasing a sustainable product gives me a sense of achievement.	□	□	□	□	□	□	□
11	I think purchasing a sustainable product would help me achieve the goals I have set for my life.	□	□	□	□	□	□	□
12	I think purchasing a sustainable product would help me to achieve my goal to get maximum value.	□	□	□	□	□	□	□
13	I think purchasing a sustainable product has been a positive experience.	□	□	□	□	□	□	□
14	A sustainable product misleads with words regarding its environmental features.	□	□	□	□	□	□	□
15	A sustainable product misleads with visuals regarding its environmental features.	□	□	□	□	□	□	□
16	A sustainable product is associated with a green claim that is vague.	□	□	□	□	□	□	□
17	A sustainable product overstates what its green functionality is.	□	□	□	□	□	□	□
18	A sustainable product leaves out important information, making the green claim sound better than it is.	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased overseas (i.e., outside of Australia). The following questions concern how positive you feel about consuming sustainable products. Please indicate how much you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I hope that the sustainable product I purchased will benefit me.	□	□	□	□	□	□	□
2	I hope the sustainable product I purchased will help me pursue my goals.	□	□	□	□	□	□	□
3	I hope the sustainable product I purchased leads to my success.	□	□	□	□	□	□	□
4	When purchasing a sustainable product, I am always hopeful that I shall achieve what I aim for.	□	□	□	□	□	□	□
5	I hope I can achieve my goals in relation to the sustainable products I purchased.	□	□	□	□	□	□	□
6	Paris is the capital of France	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased overseas (i.e., outside of Australia). The following questions relate to your awareness of sustainable product consumption. Please indicate how much you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I know that I buy products and packages that are environmentally safe.	□	□	□	□	□	□	□
2	I know more about recycling than the average person.	□	□	□	□	□	□	□
3	I know how to select products and packages that reduce the amount of waste dumping.	□	□	□	□	□	□	□
4	I understand the environmental phrases and symbols on product package.	□	□	□	□	□	□	□
5	Sydney is in India	□	□	□	□	□	□	□
6	I am very knowledgeable about environmental issues.	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased overseas (i.e., outside of Australia). The following questions would ask about your consumption. Please indicate how much you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I prefer to buy sustainable products.	□	□	□	□	□	□	□
2	I choose "sustainable products" even if they are expensive.	□	□	□	□	□	□	□
3	When shopping, I deliberately choose products with environmentally-friendly packaging.	□	□	□	□	□	□	□
4	When shopping, I deliberately check products for environmentally harmful Ingredients.	□	□	□	□	□	□	□
5	While purchasing, I see environmental and fair trade label before buying the products.	□	□	□	□	□	□	□
6	I feel that I have played a significant part in helping the environment when I purchased sustainable products.	□	□	□	□	□	□	□

The following question would ask a few things about you	
Do you live in Australia?	□Yes □No
Gender	□Male □Female □Prefer not to say
Highest Qualification	□High School □Some college, no degree □Bachelor's degree (e.g., BA, BS) □Master's degree (e.g., MA, MS) □Ph.D.
Employment status	□Employed full time □Employed part time or casual □Student □Retired □Homemaker □Self-employed □Unemployed □Unable to work
Household income (per annum in AUD)	□Less than $50,000 □$50,001-$75,000 □$75,001-$100,000 □$100,001-$125,000 □$125,001-$150,000 □ Above $ 150,000
Age (in Years)	——

Thank you for sparing time to participate in this survey!

If you have any questions or concerns, don't hesitate to get in touch with the student investigator mohd.sadiq@myacu.edu.au or the chief investigator syed.fazal-e-hasan@acu.edu.au of the Australian Catholic University

B- At Home

Please think of the sustainable products that you have purchased in Australia. You will be asked a series of questions related to your perception of sustainable products. Please indicate the extent to which you agree or disagree with the following statements.								
Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I think of myself as someone concerned about environmental issues.	□	□	□	□	□	□	□
2	I think of myself as a 'green' consumer.	□	□	□	□	□	□	□
3	Buying sustainable products would make me feel like a green consumer.	□	□	□	□	□	□	□
4	I would feel totally satisfied with myself if I bought sustainable products.	□	□	□	□	□	□	□
5	I believe that sustainable products do not contain any additives.	□	□	□	□	□	□	□
6	I believe that sustainable products do contain natural ingredients.	□	□	□	□	□	□	□
7	I believe that sustainable products do not contain any artificial ingredients.	□	□	□	□	□	□	□
8	I believe that sustainable products do not contain any chemical hormone residues.	□	□	□	□	□	□	□
9	I think I have achieved my goal by purchasing a sustainable product.	□	□	□	□	□	□	□
10	I think purchasing a sustainable product gives me a sense of achievement.	□	□	□	□	□	□	□
11	I think purchasing a sustainable product would help me achieve the goals I have set for my life.	□	□	□	□	□	□	□
12	I think purchasing a sustainable product would help me to achieve my goal to get maximum value.	□	□	□	□	□	□	□
13	I think purchasing a sustainable product has been a positive experience.	□	□	□	□	□	□	□
14	A sustainable product misleads with words regarding its environmental features.	□	□	□	□	□	□	□
15	A sustainable product misleads with visuals regarding its environmental features.	□	□	□	□	□	□	□

16	A sustainable product is associated with a green claim that is vague.	□	□	□	□	□	□	□
17	A sustainable product overstates what its green functionality is.	□	□	□	□	□	□	□
18	A sustainable product leaves out important information, making the green claim sound better than it is.	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased in Australia. The following questions concern how positive you feel about consuming sustainable products. Please indicate how much you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I hope that the sustainable product I purchased will benefit me.	□	□	□	□	□	□	□
2	I hope the sustainable product I purchased will help me pursue my goals.	□	□	□	□	□	□	□
3	I hope the sustainable product I purchased leads to my success.	□	□	□	□	□	□	□
4	When purchasing a sustainable product, I am always hopeful that I shall achieve what I aim for.	□	□	□	□	□	□	□
5	I hope I can achieve my goals in relation to the sustainable products I purchased.	□	□	□	□	□	□	□
6	Paris is the capital of France	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased in Australia. The following questions relate to your awareness of sustainable product consumption. Please indicate how much you agree or disagree with the following statements.

Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I know that I buy products and packages that are environmentally safe.	□	□	□	□	□	□	□
2	I know more about recycling than the average person.	□	□	□	□	□	□	□
3	I know how to select products and packages that reduce the amount of waste dumping.	□	□	□	□	□	□	□
4	I understand the environmental phrases and symbols on product package.	□	□	□	□	□	□	□
5	Sydney is in India	□	□	□	□	□	□	□
6	I am very knowledgeable about environmental issues.	□	□	□	□	□	□	□

Please think of the sustainable products that you have purchased in Australia. The following questions would ask about your consumption. Please indicate how much you agree or disagree with the following statements.								
Sr. No.	Items	(1) Strongly Disagree	(2)	(3)	(4)	(5)	(6)	(7) Strongly Agree
1	I prefer to buy sustainable products.	□	□	□	□	□	□	□
2	I choose "sustainable products" even if they are expensive.	□	□	□	□	□	□	□
3	When shopping, I deliberately choose products with environmentally-friendly packaging.	□	□	□	□	□	□	□
4	When shopping, I deliberately check products for environmentally harmful Ingredients.	□	□	□	□	□	□	□
5	While purchasing, I see environmental and fair trade label before buying the products.	□	□	□	□	□	□	□
6	I feel that I have played a significant part in helping the environment when I purchased sustainable products.	□	□	□	□	□	□	□

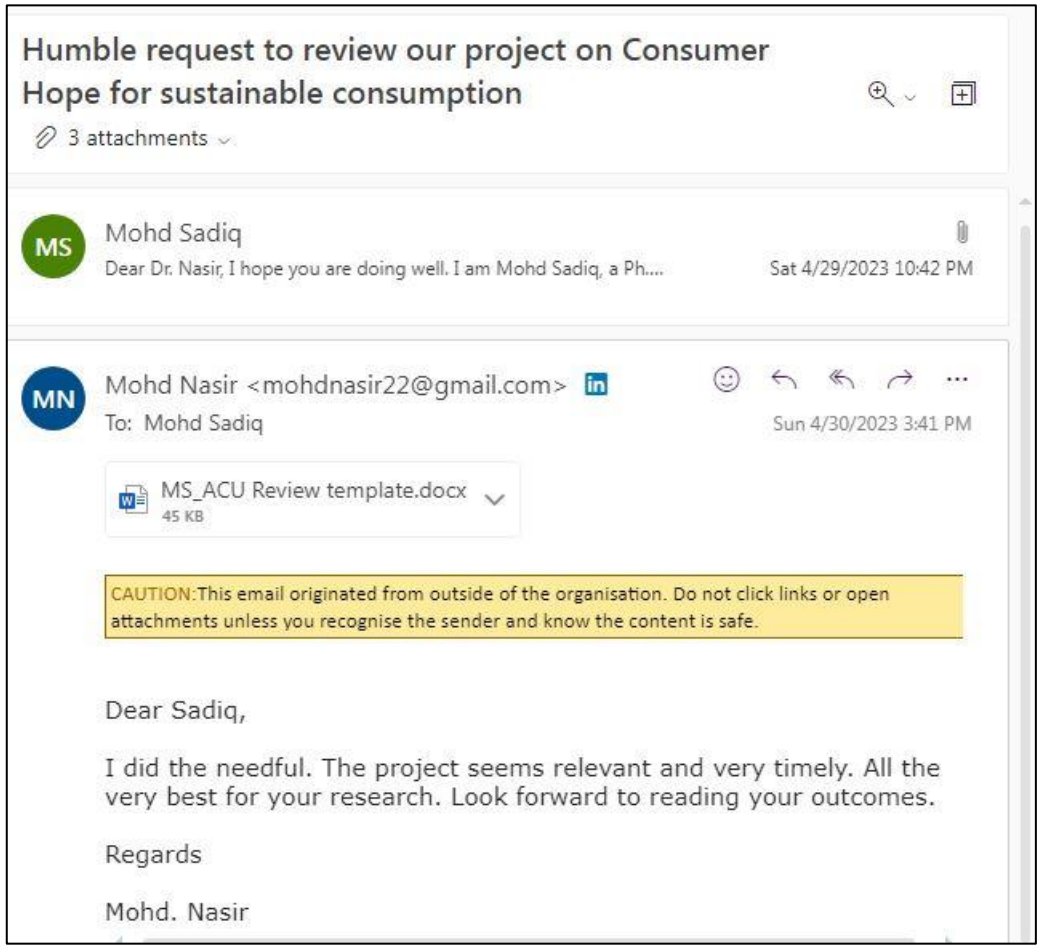
The following question would ask a few things about you	
Do you live in Australia?	□Yes □No
Gender	□Male □Female □Prefer not to say
Highest Qualification	□High School □Some college, no degree □Bachelor's degree (e.g., BA, BS) □Master's degree (e.g., MA, MS) □Ph.D.
Employment status	□Employed full time □Employed part time or casual □Student □Retired □Homemaker □Self-employed □Unemployed □Unable to work
Household income (per annum in AUD)	□Less than $50,000 □$50,001-$75,000 □$75,001-$100,000 □$100,001-$125,000 □$125,001-$150,000 □ Above $ 150,000
Age (in Years)	——

Thank you for sparing time to participate in this survey!

If you have any questions or concerns, don't hesitate to get in touch with the student investigator mohd.sadiq@myacu.edu.au or the chief investigator syed.fazal-e-hasan@acu.edu.au of the Australian Catholic University

Appendix III

Peer Review of the Questionnaire and Project



Humble request to review our project on Consumer Hope for sustainable consumption

3 attachments

MS Mohd Sadiq

Dear Dr. Nasir, I hope you are doing well. I am Mohd Sadiq, a Ph....

Sat 4/29/2023 10:42 PM

MN Mohd Nasir <mohdnasir22@gmail.com>

To: Mohd Sadiq

Sun 4/30/2023 3:41 PM

MS_ACU Review template.docx

45 KB

CAUTION:This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Sadiq,

I did the needful. The project seems relevant and very timely. All the very best for your research. Look forward to reading your outcomes.

Regards

Mohd. Nasir

Appendix IV

Participant Information Letter

PROJECT TITLE: Examining the Role of Hope in Sustainable Consumption Behaviour: A Multiple Theories Perspective

Dear Participant,

You are invited to participate in the research project described below.

What is the project about?
The research project examines the impact of cognitive factors on positive emotional mechanisms (such as hope) and the influence of positive emotions on sustainable consumption behaviour.

Who is undertaking the project?
This project is being conducted by Mohd Sadiq, PhD candidate, at Australian Catholic University. Sadiq has a strong background in marketing and consumer behaviour. The investigators are as follows:

Principal Supervisor: Dr Syed Fazal-e-Hasan, Syed.Fazal-e-Hasan@acu.edu.au

Co-Supervisor: Dr Samantha Murdy, samantha.murdy@acu.edu.au

Co-Supervisor: Professor Susan Dann, susan.dann@acu.edu.au

Associate Supervisor: Associate Professor Hormoz Ahmadi, h.ahmadi@latrobe.edu.au

Are there any risks associated with participating in this project?
There are no foreseeable risks associated with the questions that you may wish to answer. The information you provide is not identifiable. Any electronic data will be kept on cloud.acu.edu.au, ACU's centrally managed cloud server managed by the research team. It will also be kept on a password-protected computer in the same location. Only the research team will have access to the data.

What will I be asked to do?
Questions are about sustainable products perceptions, emotions and consumption behaviour. You have been invited to participate because you are above 18 years of age. Your participation will involve completing an anonymous study. The questions in this study will not be of a sensitive nature: rather they are general and will enable us to enhance our knowledge of your perceptions towards sustainable products.

How much time will the project take?
Completing your responses will take up to 20 minutes of your time. By completing the responses and submitting them, it is implied that you have consented to participate in this study (for further details on consent, please refer to the consent form provided).

What are the benefits of the research project?
This study will benefit you in terms of a financial reward of USD $5 for completing your responses. This research may also benefit participants and the community indirectly. The information participants offer the research team will be used to develop and test theoretical frameworks and the findings of this study will be available to the readers of academic journals to help them develop a better understanding of the topic.

How will you receive your payment?
Payment will be processed directly from Amazon Mechanical Turk (Mturk) platform. For further information, please visit: https://www.mturk.com/worker/help#:~:text=Getting%20Paid-,How%20do%20I%20get%20paid%3F,or%20Amazon.com%20gift%20cards

Can I withdraw from the study?
Please understand that your involvement in this study is voluntary and we respect your right to stop participating in the study at any time without consequence and without needing to provide an explanation. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without any consequences. No individual will be identified by name in any publication of the results. Participants cannot withdraw once they submit their responses as responses are anonymous.

Will anyone else know the results of the project?
The results and findings of this study will be published in academic journals. Given the information collected from you is unidentifiable, participants will not be identified in publications. The results may be provided to marketing firms in an aggregated format that does not identify participants in any way. We also intend to use collected data for some future research studies.

Will I be able to find out the results of the project?

The results or a summary of the results will be made available to the participants if they send an email to the co-investigator wishing for the same. Results may be used for future research studies.

Who do I contact if I have questions about the project?
Feel free to contact us with any questions about this research by emailing any of us at:

mohd.sadiq@myacu.edu.au

syed.fazal-e-hasan@acu.edu.au

susan.dann@acu.edu.au

samantha.murdy@acu.edu.au

h.ahmadi@latrobe.edu.au

What if I have a complaint or any concerns?
The study has been reviewed by the Human Research Ethics Committee at Australian Catholic University (**HREC Reference Number: 2023-3220N**). If you have any complaints or concerns about the conduct of the project, you may write to the Manager of the Human Research Ethics and Integrity Committee care of the Office of the Deputy Vice-Chancellor (Research).

Manager, Ethics and Integrity
c/o Office of the Deputy Vice Chancellor (Research)
Australian Catholic University
North Sydney Campus
PO Box 968
NORTH SYDNEY, NSW 2059
Ph.: +61 2 9739 2519
Fax: +61 2 9739 2870
Email: resethics.manager@acu.edu.au
Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

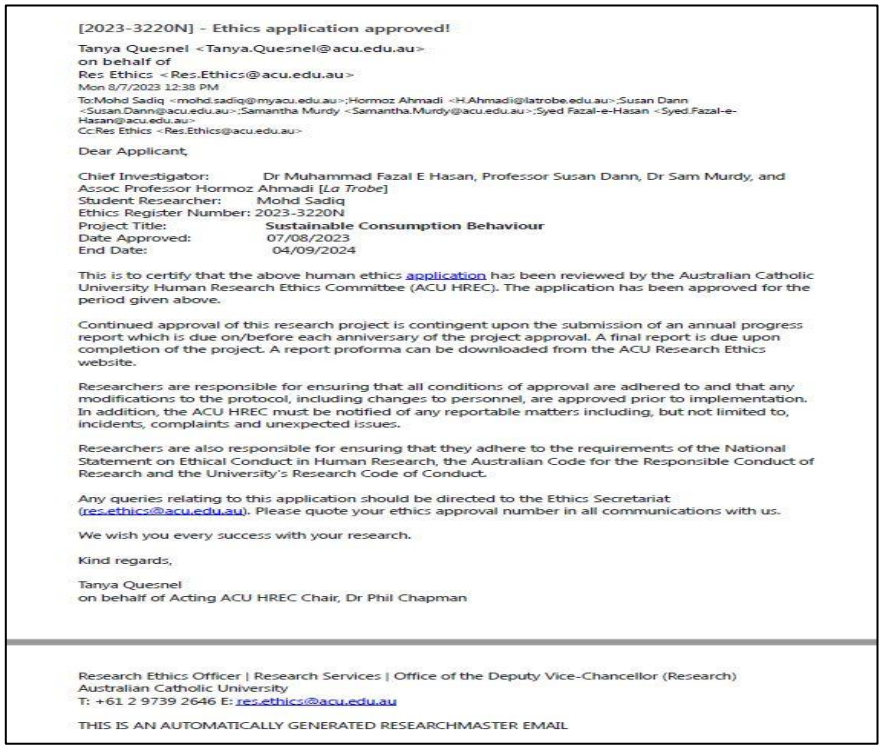
I want to participate! How do I sign up?

By completing your responses, it is implied that you have consented to participate in this study.
Yours sincerely,

	Name	*Signature*	*Date*
Chief investigator or project supervisor	Dr. Syed Fazal-e-Hasan		18/05/2023
Co-supervisor	Professor Susan Dann		19.05.2023
Co-supervisor	Dr. Samantha Murdy		19.05.2023
Associate-supervisor	Associate Professor Hormoz Ahmadi		19.05.2023
Co-Investigator or Student Researcher	Mohd Sadiq		18/05/2023

Appendix V

Ethics Approval Email From Australian Catholic University Human Research Ethics Committee (ACU HREC)



[2023-3220N] - Ethics application approved!

Tanya Quesnel <Tanya.Quesnel@acu.edu.au>
on behalf of
Res Ethics <Res.Ethics@acu.edu.au>
Mon 8/7/2023 12:38 PM
To:Mohd Sadiq <mohd.sadiq@myacu.edu.au>;Hormoz Ahmadi <H.Ahmadi@latrobe.edu.au>;Susan Dann <Susan.Dann@acu.edu.au>;Samantha Murdy <Samantha.Murdy@acu.edu.au>;Syed Fazal-e-Hasan <Syed.Fazal-e-Hasan@acu.edu.au>
Cc:Res Ethics <Res.Ethics@acu.edu.au>

Dear Applicant,

Chief Investigator: Dr Muhammad Fazal E Hasan, Professor Susan Dann, Dr Sam Murdy, and Assoc Professor Hormoz Ahmadi [*La Trobe*]
Student Researcher: Mohd Sadiq
Ethics Register Number: 2023-3220N
Project Title: **Sustainable Consumption Behaviour**
Date Approved: 07/08/2023
End Date: 04/09/2024

This is to certify that the above human ethics application has been reviewed by the Australian Catholic University Human Research Ethics Committee (ACU HREC). The application has been approved for the period given above.

Continued approval of this research project is contingent upon the submission of an annual progress report which is due on/before each anniversary of the project approval. A final report is due upon completion of the project. A report proforma can be downloaded from the ACU Research Ethics website.

Researchers are responsible for ensuring that all conditions of approval are adhered to and that any modifications to the protocol, including changes to personnel, are approved prior to implementation. In addition, the ACU HREC must be notified of any reportable matters including, but not limited to, incidents, complaints and unexpected issues.

Researchers are also responsible for ensuring that they adhere to the requirements of the National Statement on Ethical Conduct in Human Research, the Australian Code for the Responsible Conduct of Research and the University's Research Code of Conduct.

Any queries relating to this application should be directed to the Ethics Secretariat (res.ethics@acu.edu.au). Please quote your ethics approval number in all communications with us.

We wish you every success with your research.

Kind regards,

Tanya Quesnel
on behalf of Acting ACU HREC Chair, Dr Phil Chapman

Research Ethics Officer | Research Services | Office of the Deputy Vice-Chancellor (Research)
Australian Catholic University
T: +61 2 9739 2646 E: res.ethics@acu.edu.au

THIS IS AN AUTOMATICALLY GENERATED RESEARCHMASTER EMAIL

Appendix VI

Item wise scalar invariance

Items Tested	chi-square	df	chi-square difference	df difference	sig. (p-value)	Invariant or non-invariant
GSI4	1152.8	445	0	1	1.000000	Invariant
GSI1	1147.7	445	5.1	1	0.023926	Non-invariant
GSI3	1148.2	445	4.6	1	0.031972	Non-invariant
PNC1	1151.7	445	1.1	1	0.294266	Invariant
PNC2	1152.7	445	0.1	1	0.751830	Invariant
PNC3	1152.4	445	0.4	1	0.527089	Invariant
PGW2	1152.7	445	0.1	1	0.751830	Invariant
PGW3	1152.4	445	0.4	1	0.527089	Invariant
PGW4	1152.4	445	0.4	1	0.527089	Invariant
PGW5	1150.1	445	2.7	1	0.100348	Invariant
CGA1	1148.3	445	4.5	1	0.033895	Non-invariant
CGA4	1152.5	445	0.3	1	0.583882	Invariant
CGA5	1150.6	445	2.2	1	0.138011	Invariant
EK1	1142.1	445	10.7	1	0.001071	Non-invariant
EK2	1144	445	8.8	1	0.003012	Non-invariant
EK3	1152.6	445	0.2	1	0.654721	Invariant

EK4	1152.7	445	0.1	1	0.751830	Invariant
CH1	1147.9	445	4.9	1	0.026857	Non-invariant
CH2	1147	445	5.8	1	0.016026	Non-invariant
CH5	1152.8	445	0	1	1.000000	Invariant
SCB1	1152.7	445	0.1	1	0.751830	Invariant
SCB2	1152.8	445	0	1	1.000000	Invariant
SCB4	1152.7	445	0.1	1	0.751830	Invariant

Appendix VII

Unconstrained residual errors

Residual error tested	chi-square	df	chi-square difference	df difference	sig. (p-value)	Invariant or non-invariant
r1	1532.511	466	4.289	1	0.038360	Non-invariant
r2	1533.17	466	3.63	1	0.056747	Invariant
r3	1522.98	466	13.82	1	0.000201	Non-invariant
r4	1524.918	466	11.882	1	0.000567	Non-invariant
r5	1519.447	466	17.353	1	0.000031	Non-invariant
r6	1481.321	466	55.479	1	0.000000	Non-invariant
r7	1526.857	466	9.943	1	0.001615	Non-invariant
r8	1524.138	466	12.662	1	0.000373	Non-invariant
r9	1533.464	466	3.336	1	0.067779	Invariant
r10	1534.891	466	1.909	1	0.167074	Invariant
r11	1496.592	466	40.208	1	0.000000	Non-invariant
r12	1536.346	466	0.454	1	0.500442	Invariant
r13	1522.998	466	13.802	1	0.000203	Non-invariant
r14	1532.585	466	4.215	1	0.040068	Non-invariant
r15	1499.923	466	36.877	1	0.000000	Non-invariant
r16	1526.287	466	10.513	1	0.001185	Non-invariant

r17	1497.631	466	39.169	1	0.000000	Non-invariant
r18	1534.089	466	2.711	1	0.099659	Invariant
r19	1527.746	466	9.054	1	0.002621	Non-invariant
r20	1531.722	466	5.078	1	0.024231	Non-invariant
r21	1503.63	466	33.17	1	0.000000	Non-invariant
r22	1473.892	466	62.908	1	0.000000	Non-invariant
r23	1519.622	466	17.178	1	0.000034	Non-invariant