

Article

Climate Change Beliefs, Personal Environmental Norms and Environmentally Conscious Behaviour Intention

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Abstract: Purpose—The purpose of this study is to examine the relationship between climate change beliefs, personal environmental norms and environmentally conscious behaviour. This study also investigates how the relationship between climate change beliefs and environmentally conscious behaviour is mediated by environmental identity. Design/methodology/approach—A survey conducted online involving 564 Australians informs the findings. Data analysis is performed using AMOS, a structural equation modelling package. Findings—This study finds strong positive relationships between climate change beliefs, personal environmental norms and environmentally conscious behaviour. The relationship between climate change beliefs and environmentally conscious behaviour is partially mediated by environmental identity. In addition, this study also finds that the relationships between personal environmental norms, and environmental identity and environmentally conscious behaviour are partially mediated by climate change beliefs. Further, both personal environmental norms and climate change beliefs play stronger roles than environmental identity in environmentally conscious behaviour. Originality—This study engages in a scholarly conversation which claims the predictability of personal environmental norms in environmentally conscious behaviour. It adds value by establishing boundary conditions to some conversations in the field of study that claim environmental identity can be a better predictor of environmentally conscious behaviour. Research implications and limitations—This study postulates an integrated framework of value, beliefs and norms and the norm activation model to investigate environmentally conscious behaviour. This study findings are limited to a survey which involved an Australian sample. Practical implications—This study provides valuable implications for environmentally conscious businesses and policy makers. This study stresses the importance of highlighting climate change beliefs to enhance increased environmentally conscious behaviour engagement. It is, however, strongly recommended to focus on personal environmental norms as well because they play a stronger role in environmentally conscious behaviour engagement than climate change beliefs and strengthen climate change beliefs. This is important especially when conversations on the adverse effects of climate change and strategies to combat them are clouded by some political debates.



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1. Introduction

According to the world's largest survey of public opinion on climate change, 65% of those aged 18–35, 66% of those aged 36–59 and 58% of those over 60 widely hold climate change beliefs (CCB) [1]. At the 2021 United Nations Climate Change Conference (COP26), several countries pledged to cut carbon emissions by 50–52% below 2005 levels by the year 2030 [2]. Nevertheless, Australia, which has often been listed among the countries with higher per-capita CO₂ and consumption-related carbon footprints [3], agreed only to continue its existing pledge of cutting carbon emissions by 26–28% below 2005 levels [4].

Sparking some heated debates, the Australian government still relies heavily on consumers and companies to drive its pathway to reach net zero carbon emissions [5].

Nearly two-thirds of global greenhouse gas emissions are directly or indirectly linked to human daily activities [6]. Therefore, undoubtedly, consumers should play a significant role in climate actions through minimising consumption-related carbon footprints [7,8]. However, they should be provided considerable support at the grassroots level to deal with climate change as an everyday problem among other challenges [9]. Some controversial consumer research claims that Australians still believe climate change is a political debate as opposed to an everyday problem [10,11]. Therefore, climate change may not be an issue they think about on an everyday basis.

Environmentally conscious behaviour (ECB) involves exerting an effort to minimise or avoid the adverse effects of behaviour on environmental well-being [12]. Beliefs about timing, human cause, seriousness and threat of climate change are defined as climate change beliefs (CCB) [13]. Many studies find that CCB influence ECB [14–16]. According to systematic reviews of previous literature, the findings are, however, subject to the complexities of understanding and believing climate change as a real problem [17–19].

Environmental identity (EI) has the highest predictive value in ECB above and beyond attitudes, values and beliefs [20]. Environmental identity (EI) is defined as a sense of connection to some part of the non-human natural environment [21]. It is a sense of identity that transcends an individual and places him or herself as part of a living ecosystem. For example, upon knowing about and believing the adverse effects of climate change, an individual could become an environmentally conscious person, constructing an environmental identity. How individuals position and identify themselves as environmentally conscious people also plays a significant role in ECB [22]. It can therefore be assumed that CCB can influence the EI of individuals, which then in turn can influence ECB.

Although the positive (direct) relationship between EI and ECB has been well established in previous studies [20,23], the predictive value of EI in the context of CCB has yet to be confirmed. The relationship is in fact often reported to be unclear as there could be so many pathways and intersecting relationships between the two constructs. For example, leading studies in the field often argued that personal norms, feelings of moral obligation [24,25] as well as personal environmental norms (PEN) are related to self-identity [26]. They are also well established as significant factors influencing behaviour [27–29]. However, as shown in recent literature, while PEN continues to be reported as the strongest predictor of ECB [30], some other studies report that a PEN does not always predict ECB [31]. Given that not many studies re-establish the connection [26], if any, between PEN and EI, further investigation seems necessary. To this end, the present study borrowed two theoretical underpinnings—values, beliefs and norms (VBN) theory [32] and the norm activation model (NAM) [25]. They are classic theories of environmental behaviour. However, integrating the two theories and extending the parameters of the construct of environmental behaviour, especially in the context of CCB, the present study intends to postulate that PEN, CCB and EI can explain ECB. It is expected that more investigations into the relationship between ECB and CCB could provide valuable insights to cut the carbon emissions in Australia with a bottom-up approach.

Based on this background, the research problem of the investigation is articulated as: what is the relationship between PEN and ECB if CCB informs EI? This paper is organised into six sections. Following this introduction section, the literature review section engages with the relevant theoretical underpinnings, and the existing scholarly conversations on the key constructs before presenting the hypotheses of the investigation. The third section details the methodological approach adopted followed by the findings of this study in the fourth section. After discussing the findings in light of previous research in the fifth discussion section, the sixth section provides concluding remarks along with the theoretical and practical implications of the investigation.

2. Literature Review

As highlighted in the introduction section, there is a research gap in understanding individuals' beliefs about climate change and how those beliefs influence ECB. This section critically reviews relevant theoretical underpinnings, and previous literature on the key constructs. Hypotheses and the conceptual model of this study are presented at the end of the section.

Theoretical Framework and Hypotheses

Individual behaviour is usually guided by a set of internal standards [33]. They are referred to as personal norms, an individual sense of a moral obligation [24,25]. These moral obligations could be context specific and flexible; however, they usually play a significant role in guiding behaviour. For example, we may have moral obligations not to harm nature, its natural settings and rhythms through our behaviour.

Personal environmental norms are beliefs and responsibility of obligation to act in a certain way concerning the environment [34,35] and a strong predictor of ECB [30,36–38] as well as climate change mitigation [39].

As mentioned in the introduction, this study is informed by two theoretical underpinnings that widely guide environmental studies: values, beliefs and norms (VBN) theory [32] and the norm activation model (NAM) [25]. VBN theory proposes that individuals' values, beliefs and norms influence the individuals' ECB [32,33]. Researchers [26] who adopt Schwartz's measurement scale of PEN [25,26] in their work on ECB find a significant effect of PEN on ECB. This finding is also confirmed by more recent studies [12,34–36]. Extending this understanding, some researchers [35] find that PEN plays a more significant role than social norms when it comes to ECB such as choosing eco-friendly travel options. On the contrary, a systematic review [37] finds that social norms have a significant effect on ECB. Some other studies [38] also find that when it comes to certain ECB such as choosing an environmentally friendly travel mode, PEN plays no significant role. Nevertheless, some other groups of researchers report that PEN is a more powerful predictor of ECB than social norms [39–41].

The influence of personal norms on ECB can differ among countries [42]. Conducting nine focus groups of Australians, a study [43] reports individuals' engagement in ECB depends on four main categories of belief: awareness and acceptance of environmental need; consequences of personal action; responsibility for personal action; and acceptance of policy initiatives. According to a more recent study [44], these categories can also be related to how Australians believe in climate change, understanding the importance of personal actions in mitigating the adverse effects of climate change and their personal environmental norms.

The NAM [24,25] proposes three types of antecedents of behaviour—awareness of consequences, ascription of responsibility and personal norms. It is postulated that awareness of consequences affects personal norms through ascribed responsibility. Further, the relationship between personal norms and behaviour is moderated by both awareness of consequences and ascribed responsibility. Beliefs about timing, human cause, seriousness and threat of climate change are defined as CCB [45]. To this end, this study intends to extend the theoretical parameters of both VBN and the NAB by integrating CCB and EI.

Previous research establishes the relationship between values, personal norms and climate change actions [46]. Attitudinal surveys into climate change are also common. A European study found that personal norms influence individual climate actions [47]. Overall, many studies establish the association between personal norms and climate change actions and other ECB [48–51]. Except for a few studies establishing the connection between social norms and CCB [9], no compelling evidence on the association between PEN and CCB can be found in previous literature. Therefore, the association is considered an important area of focus in the present study. As mentioned earlier, one of the few investigations [9] on travel mode finds that utility needs (vehicle ownership), other factors (infrastructure), and social norms support individuals to use conventional travel modes rejecting scientific

evidence on climate change. Another study finds that social norms and CCB mediate the relationship between a sense of community and ECB [52]. A meta review finds that unlike the established associations such as values and worldviews, CCB are less strongly associated with environmental knowledge [14]. Given that personal norms are found to be a stronger predictor of ECB [30,53], it is important to investigate the relationship between PEN and CCB.

Research shows that CCB have a positive relationship with ECB [50,54] to different extents [55]. CCB explains how individuals support fossil fuel taxes in Europe [56], and public acceptance of climate change actions in China, Germany and the US [57], Colorado [58] and the Czech Republic [31]. Moreover, CCB have a positive effect on ECB among Australians [59,60].

In previous literature, PEN is often understood in relation to self-identity, which defines individual behaviour. The construct of self-identity can be understood as a perception of oneself within a certain social context. Self-identity is defined as “the self as reflexively understood by an individual in terms of her or his biography” [61], p.53. This means self-identity cannot be seen as a passive entity, rather it is an entity subject to time and space. EI is also defined as a sense of connection to some part of the non-human natural environment [21]. It can be argued that individuals are in the process of continuously and reflexively building a coherent and rewarding sense of environmental identity based on their outer environmental challenges such as climate change. Individuals not only feel responsible but empowered when dealing with complex environmental problems such as climate change problems [12]. Thus, it is argued that consumer role and identity are continuously reconstructed along with how they deal with environmental problems.

As mentioned in the introduction section, environmental identity is found to have a significant relationship with ECB [22,38]. While some studies find that social identity plays a significant role in climate actions and ECB [62,63], some other studies find that (individual) environmental identity plays a more significant role in ECB than (collective) environmental identity [22]. For example, a study [64] finds that consumers’ self-identification with environmentally friendly traits is a major predictor of ECB. More often in the literature, individual factors (anxiety and psychological characteristics) appear to be stronger predictors of ECB in the context of CCB [55,65]. Although some studies find no mediation effect of politicalised environmental identity and environmental activism [66], several other studies confirm a mediation effect of environmental identity on ecotourism [67], identification with nature [68] or valuing nature [69].

The relationship between environmental values and environmental self-identity is moderated by personal norms [70]. Although self-monitoring does not play a moderating role in the relationships between social environmental norms and personal environmental norms, self-monitoring has a significant moderating effect on the relationships between personal environmental norms and ECB [71]. Environmental identity partially mediates the relationship between internalization (i.e., the importance of morality to one’s self-identity) and ECB [72]. According to another study, there is a full mediation effect of the environmentally identity of the relationship between PEN and ECB [73]. Therefore, in this study, we examined the mediation effect of EI on ECB. Overall, following the review of the theoretical frameworks and previous literature, the below hypotheses are derived:

Hypothesis 1 (H1). *Personal environmental norms (PEN) positively affect environmentally conscious behaviour (ECB).*

Hypothesis 2 (H2). *Personal environmental norms (PEN) positively affect climate change beliefs (CCB).*

Hypothesis 3 (H3). *Climate change beliefs (CCB) positively affect environmentally conscious behaviour (ECB).*

Hypothesis 4 (H4). *Environmental identity (EI) has a significant relationship with environmentally conscious behaviour (ECB).*

Hypothesis 5 (H5). *Climate change beliefs have a significant relationship (CCB) with environmental identity (EI).*

Hypothesis 6 (H6). *Personal environmental norms (PEN) have a significant relationship with environmental identity (EI).*

The conceptual framework of this study is shown in Figure 1.

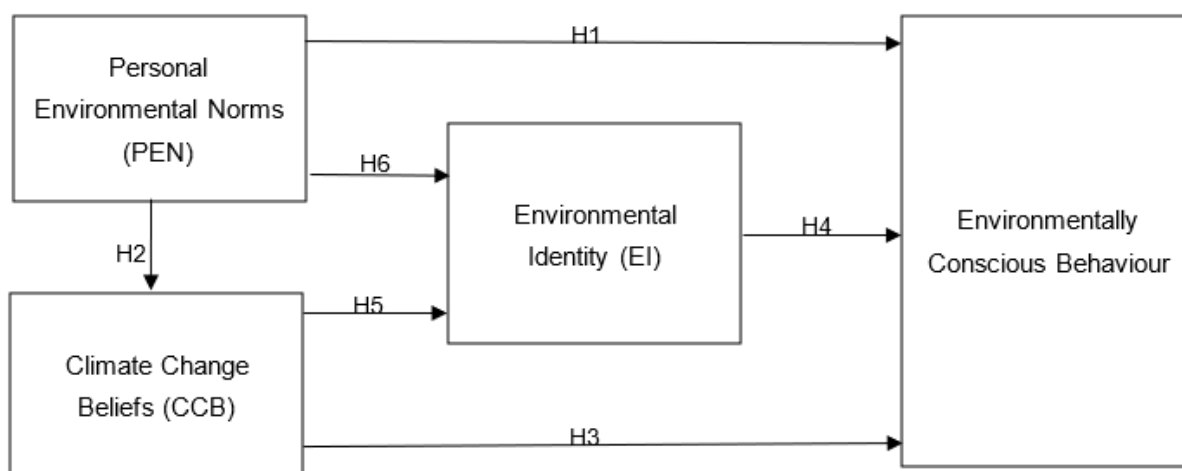


Figure 1. Conceptual model of this study.

3. Methodology

To test the conceptual model, an internet survey method was used to investigate the relationship between independent variables and dependent variables. The survey was designed using the Qualtrics platform and data were collected from July 2019 to August 2019, using the Dynata survey panel, which is an Australian research panel company. Individuals who had registered with Dynata received an invitation email from Dynata, inviting them to learn more about our study. Following the accompanying link took the participants to an online participant information sheet, which outlined the purpose of this study and provided a voluntary link to the questionnaire. Participants were able to check a box showing their consent to be involved in the survey before they could proceed to the questionnaire. In total, 682 respondents completed the survey. The sample is nationally (Australia) representative sample.

The questionnaire was estimated to take approximately 10–15 min for participants to fully answer all the questions. The questionnaire contained a variety of questions. These included sociodemographic questions, constructs that measured EI, PEN, CCB and ECB. The constructs that were used in this study were built primarily based on the measurements developed in previous studies including, 24 items measuring EI [21], 5 items measuring CCB [13], six items measuring ECB intentions [26] and seven items measuring PEN [24–26].

ECB and PEN were measured using a five-point Likert scale, with 5 being “strongly agree” and 1 being “strongly disagree”. Environmental identity was measured using a five-point scale, with 1 being “does not describe me” and 5 being “describes me extremely well”. CCB was measured using 5 individual questions. All the scales with their measurement are present in Table 1.

Table 1. Measures of the scales in the model.

Variable	Survey Items	Scale
ECB	I would be willing to sign a petition to support an environmental cause. (ECB_1)	5-point scale: (1) Strongly Disagree ... (5) Strongly Agree
	I would consider joining a group or club which is concerned with the environment. (ECB_2)	
	I would be willing to pay more taxes to support greater government control of pollution. (ECB_3)	
	I would be willing to pay more each month for electricity if it meant cleaner air. (ECB_4)	
	I would be willing to stop buying products from companies guilty of polluting the environment even though it might be inconvenient for me. (ECB_5)	
	I would be willing to make personal sacrifices for the sake of slowing down pollution even though the immediate results may not seem significant. (ECB_6)	
PEN	Buy environmentally friendly products for your household? (PEN_1)	5-point scale: (1) ‘they have already begun to happen’, (0.75) ‘they will start happening within a few years’, (0.5) ‘they will start happening within your lifetime,’ (0.25) ‘they will not happen within your lifetime, but they will affect future generations’, (0) or they will never happen’
	Recycle household waste? (PEN_2)	
	Pay attention to advertisements about products which are safe for the environment? (PEN_3)	
	Buy products made with recycled ingredient? (PEN_4)	
	Buy larger size products in order to reduce waste? (PEN_5)	
	Do whatever you can to help improve the environment? (PEN_6)	
	Buy products made by companies known for being environmentally responsible? (PEN_7)	
CCB	Which of the following statements reflects your view of when the effects of global warming will begin to happen: (CCB_1)	(1) ‘the effects of pollution from human activities’ or (0) natural changes in the environment that are not due to human activities’ 4-point scale: (1) ‘a great deal’, (0.67) ‘a fair amount’, (0.33) ‘only a little’, or (0) ‘not at all’ 0 = no, 0.5 = Maybe, 1 = yes (0) ‘generally exaggerated’, (0.5) ‘generally correct’, or is it (1) ‘generally underestimated’
	From what you have heard or read, do you believe increases in the Earth’s temperature over the last century are due more to: (CCB_2)	
	I’m going to read you a list of environmental problems. How much do you personally worry about Global arming? (CCB_3)	
	‘Do you think that global warming will pose a serious threat to you or your way of life in your lifetime? (CCB_4)	
	‘Thinking about what is said in the news, in your view is the seriousness of global warming (CCB_5)	

Table 1. Cont.

Variable	Survey Items	Scale
EI	I spend a lot of time in natural settings (woods, mountains, desert, lakes, and ocean). (EI_1)	5-point scale: (1) Does not describe me ... (5) Describes me extremely well
	Engaging in environmental behaviours is important to me. (EI_2)	
	I think of myself as a part of nature, not separate from it. (EI_3)	
	If I had enough time or money, I would certainly devote some of it to working for environmental causes. (EI_4)	
	When I am upset or stressed, I can feel better by spending some time outdoors “communing with nature”. (EI_5)	
	Living near wildlife is important to me; I would not want to live in a city all the time. (EI_6)	
	I have a lot in common with environmentalists as a group. (EI_7)	
	I believe that some of today’s social problems could be cured by returning to a more rural lifestyle in which people live in harmony with the land. (EI_8)	
	I feel that I have a lot in common with other species. (EI_9)	
	I like to garden. (EI_10)	
	Being a part of the ecosystem is an important part of who I am. (EI_11)	
	I feel that I have roots to a particular geographical location that had a significant impact on my development. (EI_12)	
	Behaving responsibly toward the earth—living a sustainable lifestyle—is part of my moral code. (EI_13)	
	Learning about the natural world should be an important part of every child’s upbringing. (EI_14)	
	In general, being part of the natural world is an important part of my self—image. (EI_15)	
	I would rather live in a small room or house with a nice view than a bigger room or house with a view of other buildings. (EI_16)	
	I really enjoy camping and hiking outdoors. (EI_17)	
	Sometimes I feel like parts of nature—certain trees, or storms, or mountains—have a personality of their own. (EI_18)	
	I would feel that an important part of my life was missing if I was not able to get out and enjoy nature from time to time. (EI_19)	
	I take pride in the fact that I could survive outdoors on my own for a few days. (EI_20)	
	I have never seen a work of art that is as beautiful as a work of nature, like a sunset or a mountain range. (EI_21)	
	My own interests usually seem to coincide with the position advocated by environmentalists. (EI_22)	
	I feel that I receive spiritual sustenance from experiences with nature. (EI_23)	
	I keep mementos from the outdoors in my room, like shells or rocks or feathers. (EI_24)	

After cleaning the data, 118 responses were deleted from 682 responses collected due to poor response, resulting in a total of 564 usable responses to analyse. A response was considered a poor response due to one or both of the following reasons: the responses were totally random, for example straight lining answers, and the time that participants spent to complete the survey was less than two minutes.

SPSS V27 was used for cleaning and editing the data, and IBM AMOS 28 was used to conduct a confirmatory factor analysis (CFA) to check the quality of the measurement model. Next, via AMOS, structural equation modelling (SEM) was used to test the path model.

4. Results

Table 2 summarizes the sociodemographic background of participants of this study. The cleaned sample ($n = 564$) consisted of approximately an even age ratio. A total of 53.5% of the participants were female (44.9% male), and 55.5% were married (23.8% single). Regarding the education of the participants, more than 95% of participants had at least a high school education. In terms of annual income, 43.8% of the participants earned less than \$19,999, 24.3% earned \$20,000–\$39,000, 14.9% earned \$40,000–\$59,999, 8.32% earned \$60,000–\$79,999, and 8.8% earned more than \$80,000 per annum.

Table 2. Respondents' sociodemographic background.

Variables		Percent (%)			Percent (%)
Age	18–24	6.7	Income	\$0–\$25,000	19.3
	25–34	15.4		\$25,001–\$50,000	24.3
	35–44	15.4		\$50,001–\$75,000	19.1
	44–54	19		\$75,001–\$100,000	10.8
	55–64	15.2		\$100,001–\$125,000	5.9
	65 and above	21.1		\$125,001–\$150,000	4.1
Marital	Single	23.8	Education	\$150,001–\$175,000	1.1
	Married	55.5		\$175,001–\$200,000	1.6
	Separated	2.8		\$200,001+	1.8
	Divorced	8.7		Less than High School	3.7
	Widowed	4.4		High School/GED	28.2
	Never Married	3		Some College	23
Gender				2 Year College Degree	7.4
				4 Year College Degree	23
	Male	44.9		Master's degree	9.2
	Female	53.5		Doctoral Degree	1.4
				Professional Degree (JD, MD)	2.1

5. Measurement Model

Following previous studies [74], we used a two-stage structural equation modelling (SEM) approach with AMOS 28 to test the measurement model before analysing the structural model. Confirmatory factor analysis (CFA) was used to test the measurement model. The initial CFA revealed several poor loaded items (standardized regression weights smaller than 0.5). These items were also cross-loaded with other items in the model. Based on the CFA analysis, some minor problems in convergent and divergent validity were observed, thus leading to the use of modification indices so as to improve the model fit adjustment. Following previous studies [75], modification indices with higher absolute values were chosen. The analysis of the indices showed that some modifications in the model specification could be made to improve the global fit indices. Moreover, all the constructs in this study are of a reflective scale and all the items in the constructs are interchangeable. Hence, overall, one item from PEN, two items from ECB, and six items from EI were removed. These modifications helped us to achieve acceptable model fit ($\chi^2(489) = 1761.645$; $\chi^2/df = 3.603$; CFI = 0.909; RMSEA = 0.068) and the high alpha values

in Table 3 show that this did not affect the measurement validity. The measurement validity of the scales is still consistent with the theoretical constructs of this study. The results of CFA suggest that the complete measurement model represents a good fit to the data. Table 3 shows the standardised factor loadings (SFLs) for each item from final CFA.

Table 3. Standardised factor loadings and Cronbach's α values.

Variable	ITEMS	SFLs	α	Variable	ITEMS	SFLs	α
EI			0.959	ECB			0.89
	EI2	0.766			ECB_2	0.768	
	EI3	0.812			ECB_3	0.872	
	EI4	0.771		PEN	ECB_4	0.845	0.924
	EI6	0.718			ECB_6	0.801	
	EI8	0.761			PEN_1	0.873	
	EI9	0.795			PEN_3	0.805	
	EI10	0.61			PEN_4	0.869	
	EI11	0.865			PEN_5	0.684	
	EI12	0.758			PEN_6	0.785	
	EI15	0.854			PEN_7	0.905	
	EI17	0.643		CCB			0.864
	EI18	0.795			CCB_1	0.743	
	EI19	0.725			CCB_2	0.694	
	EI20	0.676			CCB_3	0.812	
	EI21	0.64			CCB_4	0.735	
	EI22	0.819			CCB_5	0.745	
	EI23	0.813					
	EI24	0.704					

Following previous studies [76], the composite reliability (CR) and the average variance extracted (AVE) of each latent variable were calculated. All the estimates are greater than the threshold, thus providing support for internal consistency. In addition, discriminant validity was evaluated by using two different methods. First, all the inter-construct correlations were significantly less than 1 at the $p = 0.001$ and $p = 0.1$ levels, providing evidence for discriminant validity [77]. Second, discriminant validity was established, as the square root of the AVE estimates for each construct were greater than the correlation with all other constructs, providing further support for discriminant validity [76]. Moreover, the hetero-trait–mono-trait (HTMT) ratio was tested and it met the criteria for discriminant validity. Tables 4 and 5 present a summary of this section.

Table 4. Means, standard deviations, correlations, AVEs and discriminant validity.

Constructs	CR	AVE	EI	PEN	CCB	ECB
EI	0.959	0.57	0.755			
PEN	0.926	0.678	0.517 ***	0.823		
CCB	0.863	0.558	0.418 ***	0.461 ***	0.747	
ECB	0.893	0.677	0.521 ***	0.734 ***	0.622 ***	0.823

Significant at *** $p < 0.001$.

Table 5. HTMT criterion for discriminant validity.

Constructs	EI	PEN	CCB	ECB
EI				
PEN	0.515			
CCB	0.388	0.448		
ECB	0.525	0.757	0.619	

6. Structural Model Results

In this study, we used a latent SEM analysis with maximum likelihood estimation to test the relationships between the constructs. The structural model contains both direct and indirect effects. The model fit of the structural model was excellent (χ^2 (520) = 1856.902; χ^2/df = 3.571; CFI = 0.906; RMSEA = 0.068). The analysis revealed support for all our hypotheses, as summarized in Table 6.

Table 6. Result of structural equation analyses.

Hypothesised Relationships		β	SE	t-Value	Result
H1	PEN→ECB	0.523	0.039	11.769 ***	Supported
H2	PEN→CCB	0.461	0.027	9.795 ***	Supported
H3	CCB→ECB	0.335	0.065	8.007 ***	Supported
H4	EI→ECB	0.11	0.046	2.932 ***	Supported
H5	CCB→EI	0.228	0.059	4.864 ***	Supported
H6	PEN→EI	0.413	0.033	8.807 ***	Supported

Significant at *** $p < 0.001$ (two-tailed test); β , standardised path coefficients; SE, standard error.

A mediation analysis using bootstrap 5000 and Gaskin's (2020) plugin in AMOS software was utilized to test the mediating role of CCB and EI. Based on the results, which are reported in Table 7, all the mediations are significant. As the direct relationship between the DVs and IVs was also significant, we can conclude that we have partial mediation.

Table 7. Mediation analysis.

Indirect Path	Standardised Estimate	Lower	Upper	Result
PEN → CCB → EI	0.105 ***	0.047	0.11	Supported
PEN → CCB → ECB	0.155 ***	0.104	0.174	Supported
PEN → EI → ECB	0.046 **	0.016	0.07	Supported
CCB → EI → ECB	0.025 **	0.016	0.074	Supported

Significant at *** $p < 0.001$; ** $p < 0.01$ (two-tailed test).

7. Discussion

This study investigates how personal environmental norms and climate change beliefs influence environmentally conscious behaviour. In consultation with existing debates in the literature, this study also investigates how the relationship between climate change beliefs and environmentally conscious behaviour is mediated by environmental identity. This section discusses the findings of the investigation in light of the findings of previous studies and the chosen theoretical insights.

This study borrows theoretical underpinnings from VBN theory [32] and NAM [24,25]. Strengthening VBN theory and disconfirming previous research [38], this study finds that PEN positively affect ECB (H1) and that they are positively related to CCB (H2). VBN postulates that values influence ECB via pro-environmental beliefs and personal norms. The present study's findings confirm that PEN influence ECB both directly as well as via CCB. Establishing a partial mediation, CCB mediates the relationship between PEN and ECB (see Table 7).

As postulated in the NAM and confirming previous research [78], in the context of climate change, PEN strengthen the beliefs about timing, human cause, seriousness and threat of climate change and influence ECB. The NAM postulated that altruism and behaviour are influenced by moral values that are triggered by awareness of consequence, ascription of responsibility, and personal norms. Therefore, this study proposes that an integrated framework of these theoretical models could better explain ECB in the context of CCB. To this end, as shown in Figure 1, a conceptual model of the present study, the present study postulates that PEN, CCB and EI can explain ECB. This theoretical contribution of this study can guide future research in ECB.

The influence of individual factors (values, attitudes) on ECB are well established. However, previous research provides no compelling evidence on the association between PEN and CCB except for the association between social norms and CCB [9]. To this end, this study makes a significant contribution by establishing the association between PEN and CCB (H2). Social norms are values and standards of behaviour accepted by a group of people. In ECB literature, some studies report that social norms [79,80], social identity [81] and social interactions [82] influence ECB. While a meta-analysis of ECB confirms that PEN is the third powerful predictor of ECB next to attitudes and behaviour control, empirical evidence on the association between PEN and ECB, especially in the context of CCB, is rare. Presenting empirical evidence on the association, the present study makes a significant contribution to the literature.

Interestingly, this study shows that PEN is a stronger predictor of ECB than CCB (see Table 7). Previous research conducted in Australia finds that CCB have a positive effect on ECB [59,60]. Nevertheless, confirming some other research [30,53], the present study finds that PEN also have a stronger predictability than CCB in ECB. The finding sets a significant boundary condition to the existing findings in the field of study. Further, the finding may imply that the complexity of understanding climate change and the adverse effects of the political debates in Australia surrounding the effectiveness of strategies of reducing carbon emissions still influence ECB; therefore, CCB themselves do not make a significant influence on ECB like PEN do. Therefore, actions on climate change should focus both on PEN and CCB—especially, it should be noted that PEN strengthen CCB.

As detailed in the literature review section of this paper, a growing body of literature shows that EI plays a significant role in ECB [22]. Moreover, some studies report that EI is the strongest predictor of ECB [20,83]. While the present study confirms the positive relationship between EI and ECB (H4), this study also shows that both PEN (H1) and CCB (H3) apparently play a stronger role than EI in ECB. Between the two constructs, however, PEN influence EI stronger (H6) than CCB, although CCB and EI are also positively related (H5). This finding confirms previous research findings [30], by re-establishing the stronger influence of PEN in ECB. Moreover, some research in the field of environmental activism [66] finds no evidence of a mediation effect on EI, the present study finds a partial mediation between PEN and ECB and CCB and ECB.

This study also makes significant practical implications for environmentally conscious businesses and policy makers. There is a possibility that the impact of PEN can be stronger when individuals believe in CCB, although they may not have strongly established EI. Therefore, it is important to strengthen CCB to enhance individuals' engagement in ECB. Further, although EI can play a role in ECB, influence of PEN on EI is stronger than CCB. Therefore, caution should be exercised when promoting climate change as a promotional theme with a view to strengthen EI (e.g., strengthening consumer identity through climate change-conscious product branding strategies); instead, focusing on PEN is strongly recommended especially because PEN strengthen CCB.

A few limitations of this study should be paid attention to. This study utilized a sample of respondents in Australia, a developed country where climate change is predominantly a political debate despite the economic, environmental and social issues it creates for all Australians. A study involving respondents from a more environmentally conscious country, a developing country, or a poor country where other social issues are more prominent may yield different results from the present study.

8. Conclusions

This study showed the strong positive relationships between personal environmental norms, climate change beliefs and environmentally conscious behaviour. The key findings of this study are: (1) personal environmental norms positively affect environmentally conscious behaviour, (2) personal environmental norms and climate change beliefs are positively related, (3) environmental identity and environmentally conscious behaviour are positively related, and (4) climate change beliefs play a stronger role than environ-

mental identity in environmentally conscious behaviour. Further, this study also found that personal environmental norms influence environmental identity stronger than climate change beliefs. This study also showed how the relationship between climate change beliefs and environmentally conscious behaviour is partially mediated by environmental identity. While this study made a significant theoretical contribution by proposing an integrated theoretical framework of values, beliefs and norms theory and the norm activation model, it also discussed several practical implications for environmentally conscious businesses and policy makers. Climate change-related natural disasters (e.g., floods and bushfires) occur differently in different geographic locations in Australia. Therefore, a study which utilizes a clustering sampling technique to represent climate change beliefs among Australians in different geographic locations can be recommended as a future investigation. The findings of the present study are informed by an online survey. Some of the complexities of understanding climate change can also be better captured through a qualitative investigation.

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References

1. United Nations Development Programme. World's Largest Survey of Public Opinion on Climate Change: A Majority of People Call for Wide-Ranging Action. 2021. Available online: <https://www.undp.org/press-releases/worlds-largest-survey-public-opinion-climate-change-majority-people-call-wide> (accessed on 14 December 2021).
2. United Nations. COP26. 2021. Available online: <https://ukcop26.org> (accessed on 14 December 2021).
3. The Guardian. The Ultimate Climate Change FAQ. 2021. Available online: <https://www.theguardian.com/australia-news/2021/jan/28/australia-needs-to-cut-emissions-by-at-least-50-by-2030-to-meet-paris-goals-experts-say> (accessed on 14 December 2021).
4. BBC News. Australia Resists Calls for Tougher Climate Targets. 2021. Available online: <https://www.bbc.com/news/world-australia-56854558> (accessed on 14 December 2021).
5. NBC News. Australia's Dismal Climate Record Comes under COP26 Spotlight. 2021. Available online: <https://www.cnbc.com/2021/11/26/australias-dismal-climate-record-comes-under-cop26-spotlight.html> (accessed on 14 December 2021).
6. Wang, T.; Shen, B.; Springer, C.H.; Hou, J. What prevents us from taking low-carbon actions? A comprehensive review of influencing factors affecting low-carbon behaviors. *Energy Res. Soc. Sci.* **2021**, *71*, 101844. [CrossRef]
7. Feng, K.; Hubacek, K.; Song, K. Household carbon inequality in the US. *J. Clean Prod.* **2021**, *278*, 123994. [CrossRef]
8. Scrucca, F.; Barberio, G.; Fantin, V.; Porta, P.L.; Barbanera, M. Carbon footprint: Concept, methodology and calculation. In *Carbon Footprint Case Studies*; Springer: Singapore, 2021; pp. 1–31.
9. Thøgersen, J. Consumer behavior and climate change: Consumers need considerable assistance. *Curr. Opin. Behav. Sci.* **2021**, *42*, 9–14. [CrossRef]
10. Barber, G.; Klassen, A. Climate change, the Australian Greens, and dynamics of party competition across five national elections in Australia. *Aust. J. Polit. Sci.* **2021**, *56*, 56–72. [CrossRef]
11. Copland, S. Anti-politics and global climate inaction: The case of the Australian carbon tax. *Crit. Sociol.* **2020**, *46*, 623–641. [CrossRef]
12. Connolly, J.; Prothero, A. Green Consumption: Life-politics, risk and contradictions. *J. Consum. Cult.* **2008**, *8*, 117–145. [CrossRef]
13. McCright, A.M.; Dunlap, R.E.; Xiao, C. Perceived scientific agreement and support for government action on climate change in the USA. *Clim. Change* **2013**, *119*, 511–518. [CrossRef]
14. Hornsey, M.J.; Harris, E.A.; Bain, P.G.; Fielding, K.S. Meta-analyses of the determinants and outcomes of belief in climate change. *Nat. Clim. Change* **2016**, *6*, 622–626. [CrossRef]
15. Perera, L.C.R.; Hewege, C.R. Climate change risk perceptions and environmentally conscious behaviour among young environmentalists in Australia. *Young Consum.* **2013**, *14*, 139–154. [CrossRef]

16. Zawadzki, S.J.; Bouman, T.; Steg, L.; Bojarskich, V.; Druen, P.B. Translating climate beliefs into action in a changing political landscape. *Clim. Change* **2020**, *161*, 21–42. [\[CrossRef\]](#)
17. Goodman, M.K.; Doyle, J.; Farrell, N. Practising everyday climate cultures: Understanding the cultural politics of climate change. *Clim. Change* **2020**, *163*, 1–7. [\[CrossRef\]](#) [\[PubMed\]](#)
18. Hügel, S.; Davies, A.R. Public participation, engagement, and climate change adaptation: A re-view of the research literature. *Wiley Interdiscip. Rev. Clim. Change* **2020**, *11*, e645. [\[CrossRef\]](#)
19. Rousell, D.; Cutter-Mackenzie-Knowles, A. A systematic review of climate change education: Giving children and young people a ‘voice’ and a ‘hand’ in redressing climate change. *Child Geogr.* **2020**, *18*, 191–208. [\[CrossRef\]](#)
20. Schwartz, D.; Loewenstein, G.; Agüero-Gaete, L. Encouraging pro-environmental behaviour through green identity labelling. *Nat. Sustain.* **2020**, *3*, 746–752. [\[CrossRef\]](#)
21. Clayton, S.; Optow, S. Environmental identity: A conceptual and an operational definition. In *Identity and the Natural Environment: The Psychological Significance of Nature*; MIT Press: Cambridge, MA, USA, 2003; pp. 45–65.
22. Wang, X.; van der, W.E.; Bouman, T.; Harder, M.K.; Steg, L. I am vs. we are: How biospheric values and environmental identity of individuals and groups can influence pro-environmental behaviour. *Front. Psychol.* **2021**, *12*, 8956. [\[CrossRef\]](#) [\[PubMed\]](#)
23. Ateş, H. Understanding students’ and science educators’ eco-labeled food purchase behaviors: Ex-tension of theory of planned behavior with self-identity, personal norm, willingness to pay, and eco-label knowledge. *Ecol. Food Nutr.* **2021**, *60*, 454–472. [\[CrossRef\]](#) [\[PubMed\]](#)
24. Schwartz, S.H. Normative explanations of helping behavior: A critique, proposal, and empirical test. *J. Exp. Soc. Psychol.* **1973**, *9*, 349–364. [\[CrossRef\]](#)
25. Schwartz, S.H. Normative influences on altruism. *Adv. Exp. Soc. Psychol.* **1977**, *10*, 221–279.
26. Minton, A.P.; Rose, R.L. The effects of environmental concern on environmentally friendly consumer behavior: An exploratory study. *J. Bus. Res.* **1997**, *40*, 37–48. [\[CrossRef\]](#)
27. Berkowitz, L. Social norms, feelings, and other factors affecting helping and altruism. In *Advances in Experimental Social Psychology*; Elsevier: Amsterdam, The Netherlands, 1972; Volume 6, pp. 63–108.
28. Fishbein, M.; Ajzen, I. Belief, attitude, intention, and behavior: An introduction to theory and re-search. *Philos. Rhetor.* **1975**, *10*, 177–189.
29. Triandis, H.C. Theoretical framework for evaluation of cross-cultural training effectiveness. *Int. J. Intercult. Relat.* **1977**, *1*, 19–45. [\[CrossRef\]](#)
30. Esfandiari, K.; Dowling, R.; Pearce, J.; Goh, E. Personal norms and the adoption of pro-environmental binning behaviour in national parks: An integrated structural model approach. *J. Sustain. Tour.* **2020**, *28*, 10–32. [\[CrossRef\]](#)
31. Krkoška Lorencová, E.; Loučková, B.; Vačkářů, D. Perception of climate change risk and adaptation in the Czech Republic. *Climate* **2019**, *7*, 61. [\[CrossRef\]](#)
32. Stern, P.C.; Dietz, T.; Abel, T.; Guagnano, G.A.; Kalof, L. A value-belief-norm theory of support for social movements: The case of environmentalism. *Hum. Ecol. Rev.* **1999**, *6*, 81–98.
33. Stern, P.C. Psychology and the science of human-environment interactions. *Am. Psychol.* **2000**, *55*, 523–530. [\[CrossRef\]](#) [\[PubMed\]](#)
34. De Groot, J.I.M.; Bondy, K.; Schuitema, G. Listen to others or yourself? The role of personal norms on the effectiveness of social norm interventions to change pro-environmental behavior. *J. Environ. Psychol.* **2021**, *78*, 101688. [\[CrossRef\]](#)
35. Doran, R.; Larsen, S. The relative importance of social and personal norms in explaining intentions to choose eco-friendly travel options. *Int. J. Tour. Res.* **2016**, *18*, 159–166. [\[CrossRef\]](#)
36. Reinders, M.J.; Onwezen, M.C.; Meeusen, M.J.G. Can bio-based attributes upgrade a brand? How partial and full use of bio-based materials affects the purchase intention of brands. *J. Clean Prod.* **2017**, *162*, 1169–1179. [\[CrossRef\]](#)
37. Farrow, K.; Grolleau, G.; Ibanez, L. Social norms and pro-environmental behavior: A review of the evidence. *Ecol. Econ.* **2017**, *140*, 1–13. [\[CrossRef\]](#)
38. Zavareh, M.F.; Mehdizadeh, M.; Nordfjærn, T. Active travel as a pro-environmental behaviour: An integrated framework. *Transp. Res. Part D Transp. Environ.* **2020**, *84*, 102356. [\[CrossRef\]](#)
39. Gao, L.; Wang, S.; Li, J.; Li, H. Application of the extended theory of planned behavior to understand individual’s energy saving behavior in workplaces. *Resour. Conserv. Recycl.* **2017**, *127*, 107–113. [\[CrossRef\]](#)
40. Lobo, A.; Greenland, S. The influence of cultural values on green purchase behaviour. *Mark Intell. Plan.* **2017**, *35*, 377–396.
41. Prakash, G.; Pathak, P. Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *J. Clean Prod.* **2017**, *141*, 385–393. [\[CrossRef\]](#)
42. Robles-Avila, S.E. The role of environmental personal norms in the VBN framework: Testing the differences between the United States and Mexico regarding the disposal of potentially harmful products. *J. Int. Consum. Mark.* **2021**, 1–22. [\[CrossRef\]](#)
43. Blamey, R. Contingent valuation and the activation of environmental norms. *Ecol. Econ.* **1998**, *24*, 47–72. [\[CrossRef\]](#)
44. Brosch, T. Affect and emotions as drivers of climate change perception and action: A review. *Curr. Opin. Behav. Sci.* **2021**, *42*, 15–21. [\[CrossRef\]](#)
45. McCright, A.M.; Dunlap, R.E.; Xiao, C. Increasing influence of party identification on perceived scientific agreement and support for government action on climate change in the United States, 2006–2012. *Weather Clim. Soc.* **2014**, *6*, 194–201. [\[CrossRef\]](#)
46. Kwon, S.-A.; Kim, S.; Lee, J.E. Analyzing the determinants of individual action on climate change by specifying the roles of six values in South Korea. *Sustainability* **2019**, *11*, 1834. [\[CrossRef\]](#)

47. Reichl, J.; Cohen, J.J.; Klöckner, C.A.; Kollmann, A.; Azarova, V. The drivers of individual climate actions in Europe. *Glob. Environ. Change* **2021**, *71*, 102390. [\[CrossRef\]](#)
48. Brick, C.; Bosshard, A.; Whitmarsh, L. Motivation and climate change: A review. *Curr. Opin. Psychol.* **2021**, *42*, 82–88. [\[CrossRef\]](#)
49. Whitmarsh, L.; Seyfang, G.; O'Neill, S. Public engagement with carbon and climate change: To what extent is the public carbon capable? *Global Environ. Change* **2011**, *21*, 56–65. [\[CrossRef\]](#)
50. Cunningham, G.; McCullough, B.P.; Hohensee, S. Physical activity and climate change attitudes. *Clim. Change* **2020**, *159*, 61–74. [\[CrossRef\]](#)
51. Ünal, A.B.; Steg, L.; Gorsira, M. Values versus environmental knowledge as triggers of a process of activation of personal norms for eco-driving. *Environ. Behav.* **2018**, *50*, 1092–1118. [\[CrossRef\]](#) [\[PubMed\]](#)
52. Smith, C.J.; Dupré, K.E.; McEvoy, A.; Kenny, S. Community perceptions and pro-environmental behavior: The mediating roles of social norms and climate change risk. *Can. J. Behav. Sci.* **2021**, *53*, 200–210. [\[CrossRef\]](#)
53. Sharma, R.; Gupta, A. Pro-environmental behaviour among tourists visiting national parks: Application of value-belief-norm theory in an emerging economy context. *Asia Pac. J. Tour Res.* **2020**, *25*, 829–840. [\[CrossRef\]](#)
54. Jessani, Z.; Harris, P.B. Personality, politics, and denial: Tolerance of ambiguity, political orientation and disbelief in climate change. *Pers. Individ. Differ.* **2018**, *131*, 121–123. [\[CrossRef\]](#)
55. Stollberg, J.; Jonas, E. Existential threat as a challenge for individual and collective engagement: Climate change and the motivation to act. *Curr. Opin. Psychol.* **2021**, *42*, 145–150. [\[CrossRef\]](#)
56. Fairbrother, M.; Sevä, I.J.; Kulin, J. Political trust and the relationship between climate change beliefs and support for fossil fuel taxes: Evidence from a survey of 23 European countries. *Glob. Environ. Change* **2019**, *59*, 102003. [\[CrossRef\]](#)
57. Schwirplies, C. Citizens' acceptance of climate change adaptation and mitigation: A survey in China, Germany, and the US. *Ecol. Econ.* **2018**, *145*, 308–322. [\[CrossRef\]](#)
58. Shepard, S.; Boudet, H.; Zano, C.M.; Cramer, L.A.; Tilt, B. Community climate change beliefs, awareness, and actions in the wake of the September 2013 flooding in Boulder County, Colorado. *J. Environ. Stud. Sci.* **2018**, *8*, 312–325. [\[CrossRef\]](#)
59. Beattie, G.; Han, Y.; La Nauze, A. Conservation Spillovers: The Effect of Rooftop Solar on Climate Change Beliefs. *Environ. Resour. Econ.* **2019**, *74*, 1425–1451. [\[CrossRef\]](#)
60. Muroi, S.K.; Bertone, E. From thoughts to actions: The importance of climate change education in enhancing students' self-efficacy. *Aust. J. Environ. Educ.* **2019**, *35*, 123–144. [\[CrossRef\]](#)
61. Giddens, A. *Modernity and Self-Identity: Self and Society in the Late Modern age*; Stanford Univ Press: Redwood City, CA, USA, 1991.
62. Mackay, C.M.L.; Cristoffanini, F.; Wright, J.D.; Neufeld, S.D.; Ogawa, H.F.; Schmitt, M.T. Connection to nature and environmental activism: Politicized environmental identity mediates a relationship between identification with nature and observed environmental activist behaviour. *Curr. Res. Ecol. Soc. Psychol.* **2021**, *2*, 100009. [\[CrossRef\]](#)
63. Masson, T.; Fritsche, I. We need climate change mitigation and climate change mitigation needs the 'We': A state-of-the-art review of social identity effects motivating climate change action. *Curr. Opin. Behav. Sci.* **2021**, *42*, 89–96. [\[CrossRef\]](#)
64. Khare, A. Antecedents to green buying behaviour: A study on consumers in an emerging economy. *Mark. Intell. Plan.* **2015**, *33*, 309–329. [\[CrossRef\]](#)
65. Klas, A.; Clarke, E.J.R. The role of psychological variables in developing effective climate change message frames. In *Research Handbook on Communicating Climate Change*; Edward Elgar Publishing: Cheltenham, UK, 2020.
66. Schmitt, M.T.; Mackay, C.M.L.; Droogendyk, L.M.; Payne, D. What predicts environmental activism? The roles of identification with nature and politicized environmental identity. *J. Environ. Psychol.* **2019**, *61*, 20–29. [\[CrossRef\]](#)
67. Teeroovengadam, V. Environmental identity and ecotourism behaviours: Examination of the direct and indirect effects. *Tour. Rev.* **2019**, *74*, 280–292. [\[CrossRef\]](#)
68. Mackay, C.M.L.; Schmitt, M.T.; Lutz, A.E.; Mendel, J. Recent developments in the social identity approach to the psychology of climate change. *Curr. Opin. Psychol.* **2021**, *42*, 95–101. [\[CrossRef\]](#)
69. Diessner, R.; Genthös, R.; Praest, K.; Pohling, R. Identifying with nature mediates the influence of valuing nature's beauty on proenvironmental behaviors. *Ecopsychology* **2018**, *10*, 97–105. [\[CrossRef\]](#)
70. Balundė, A.; Perlaviciute, G.; Truskauskaitė-Kunevičienė, I. Sustainability in youth: Environmental considerations in adolescence and their relationship to pro-environmental behavior. *Front. Psychol.* **2020**, *11*, 2985. [\[CrossRef\]](#)
71. Park, S.-Y.; Sohn, S.H. Exploring the normative influences of social norms on individual environmental behavior. *J. Glob. Sch. Mark. Sci.* **2012**, *22*, 183–194.
72. Abbas, M.; Bashir, F. Having a green identity: Does pro-environmental self-identity mediate the effects of moral identity on ethical consumption and pro-environmental behaviour? *Stud. Psychol.* **2020**, *41*, 612–643. [\[CrossRef\]](#)
73. Gatersleben, B.; Murtagh, N.; Abrahamse, W. Values, identity and pro-environmental behaviour. *J. Acad. Soc. Sci.* **2014**, *9*, 374–392. [\[CrossRef\]](#)
74. Anderson, J.C.; Gerbing, D.W. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol. Bull.* **1988**, *103*, 411–423. [\[CrossRef\]](#)
75. Duarte, P.; e Silva, S.C.; Ferreira, M.B. How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *J. Retail Consum. Serv.* **2018**, *44*, 161–169. [\[CrossRef\]](#)
76. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [\[CrossRef\]](#)

77. Bagozzi, R.P.; Yi, Y. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [[CrossRef](#)]
78. Zhang, L.; Ruiz-Menjivar, J.; Luo, B.; Liang, Z.; Swisher, M.E. Predicting climate change mitigation and adaptation behaviors in agricultural production: A comparison of the theory of planned behavior and the Value-Belief-Norm Theory. *J. Environ. Psychol.* **2020**, *68*, 101408. [[CrossRef](#)]
79. Culiberg, B.; Elgaaied-Gambier, L. Going green to fit in—understanding the impact of social norms on pro-environmental behaviour, a cross-cultural approach. *Int. J. Consum. Stud.* **2016**, *40*, 179–185. [[CrossRef](#)]
80. Perry, G.L.; Richardson, S.J.; Harré, N.; Hodges, D.; Lyver, P.O.B.; Maseyk, F.J.; Taylor, R.; Todd, J.H.; Tylianakis, J.M.; Yletyinen, J.; et al. Evaluating the role of social norms in fostering pro-environmental behaviors. *Front. Environ. Sci.* **2021**, *9*, 160. [[CrossRef](#)]
81. Fritsche, I.; Barth, M.; Jugert, P.; Masson, T.; Reese, G. A social identity model of pro-environmental action (SIMPEA). *Psychol. Rev.* **2018**, *125*, 245–269. [[CrossRef](#)] [[PubMed](#)]
82. Li, Q.; Wu, M. Tourists' pro-environmental behaviour in travel destinations: Benchmarking the power of social interaction and individual attitude. *J. Sustain. Tour.* **2020**, *28*, 1371–1389. [[CrossRef](#)]
83. Whitmarsh, L.; O'Neill, S. Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. *J. Environ. Psychol.* **2010**, *30*, 305–314. [[CrossRef](#)]