

# Integrating General Environmental Knowledge and Eco-label Knowledge in Understanding Pro-Environmental Behaviors of Vietnamese Customers

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**Abstract:** *Pro-environmental behavior and green consumption have become popular topics in recent years due to environmental problems caused by human activities, especially the overconsumption of consumers. This study aims at integrating two types of knowledge: general environmental knowledge and eco-label knowledge to examine their influence on pro-environmental behavior (PECB). Moreover, trust in eco-labels and attitude towards the environment are also incorporated as mediators to further investigate the effects on consumers' behavior. The findings indicate that eco-label knowledge, a context-specific understanding, supplements the general environmental knowledge in enhancing the customer commitment to pro-environmental behaviors. These relationships are directly and indirectly mediated by customer attitude towards the environment and their trust in eco-labels. The study assists governments and businesses in considering the employment of context-specific knowledge such as knowledge related to eco-labels to better shape and influence customers' attitudes and behaviors.*

**Keywords:** Pro-environmental consumer behaviors, eco-label knowledge, trust in eco-labels, green consumption

## 1. Introduction

The topic of pro-environmental behavior has become an important subject for investigation in the field of marketing literature in recent decades [1]–[3]. Moreover, there has been the realization of researchers that different scales of human behaviors, whether significant or small, would affect the environment in certain ways [4]. This awareness encouraged the increased amount of studies aiming at improving public awareness about sustainability issues as well as educating consumers about their behaviors' influences [5], [6]. Within the scope of this research, in which the concept of pro-environmental behavior is specifically defined as the consumers' purchasing action of products and services that they perceive would leave positive or (less negative) influences on the environment [7], the research's focus would be on consumption behaviors of consumers.

The environmental conditions of the world have been depleted rapidly due to the escalating scale of industrial production, natural resources utilization as well as individuals' overconsumption [8]. Among the complex factors contributing to the undesirable current situations of the environment, overconsumption and environmentally irresponsible purchasing deserve great attention from governments, consumers, and companies because they can be severely damaging to the environment [9], [10]. The inclination of consumers to make more "green" purchases due to their improved awareness of their possible harmful actions is a current tendency to be observed [11], [12].

In developing Asian countries, green consumption has become a prominent topic due to the environmental concerns caused by excessive natural resource usage and serious pollution problems, which are associated with these

countries' blooming economic development in recent years [13]. The Vietnamese government has introduced sustainability legislation regarding environmental protection and pro-environmental business practices [14], as well as certified three kinds of eco-labels [15], [16]. Many Vietnamese producers in sectors including food, plastic, or agricultural production have also shown attention and interest in eco-label certificate registration and [15]. Vietnamese consumers also showed the tendency to have a better attitude towards environmental problems [17]. However, despite the current interest and attention, the green products' market share in Vietnam is still low [18]. In addition, the existence of too many different kinds of eco-labels has also created barriers in consumers' green products and services selection [15]. Finally, the effectiveness of eco-label communication has been questioned due to difficulties in distinguishing eco-labels from other conventional labels, lack of trust in the information, or unfamiliarity with sustainable issues [9].

Considering the previously mentioned situations, and the fact that none of the previous research in Vietnam has examined how different types of knowledge influence green consumption and pro-environmental behaviors, this study aims at filling this gap by incorporating two types of knowledge (e.g., general environmental knowledge and eco-label knowledge) in forming pro-environmental behaviors while simultaneously testing the mediation role of environmental attitude and trust in eco-labels. The results support the evaluation of current sustainable programs' effectiveness which are implemented by the Vietnamese government and domestic firms, while simultaneously acknowledging the consumers about the subject of environmental-oriented behavior. This research contributes to the extant literature regarding the topic of customers knowledge and pro-environmental behaviors towards green consumption in Vietnam.

## 2. Literature Review

In the field of marketing in general and green marketing in specific, topics related to pro-environmental behavior as well as green consumption have become predominant during the current decades [1]–[3], [13]. Most of the existing research is based on social-psychology theories and models, in which these frameworks suggest different approaches towards studying human ecological behaviors. One of them is the popular Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) introduced by [19], which indicate that behavioral intentions of people are formed sensibly from three kinds of beliefs regarding performing the behavior [20]. Other frameworks that can be accounted for include the Motivation-Ability-Opportunity (MAO) model was brought to the field of studying ecological behavior by [21], the Value-Belief-Norm (VBN) theory proposed by [22], or the Attitude-Behavior-Context theory by [23]. The consistency that remains in many of these models is that they usually include an individual's social and psychological factors as important determinants.

Regarding the variables studied in the field, they can be categorized into internal factors such as demographic variables, emotions, values, and external factors such as product availability, store-related attributes or certification, and eco-labeling [4], [9]. Among these variables, it has been found that psychological factors provided a better understanding of pro-environmental behavior mechanisms in comparison with external and demographic determinants [4].

Considering previous theories used, TRA and TPB were the most prominent theories chosen by researchers in studying pro-environmental behavior [4], [9], [18]. There have been many authors who have applied the theories [24]–[28] and some studies have shown valid evidence provided by the theories [29]–[31]. On the other hand, the theories have also received much criticism. These drawbacks of the theories include the attitude-behavior gap [9]; the ignorance of situational factors, for example, economic constraints [32], [33]; or the lack of habitual purchasing behavior [34], [35]. However, generally acceptable explanations are presented in the paper “The influence of Attitudes on Behavior” [20]. Overall, the two theories of Ajzen still hold a certain level of validity and can be used as a guiding framework for studying pro-environmental behaviors.

In recent years, eco-labels have been increasingly implemented both practically [36] and theoretically [37], [38]. Moreover, there have been studies showing the partial dependence of responsible consumption in information gained from different sources such as product packages, environmental awareness campaigns, or traditional advertising [28], [39]. Among these information sources, it has been reported that the reliance of consumers on eco-labels certified by companies, governments, or other third parties has increased [40]. However, researchers have expressed doubts about the role of eco-labels in assisting consumers with the information they need to make purchase decisions [41]. There are too many products in the market with a vast amount of information but consumers have little

time to evaluate [42]; the effectiveness of these labels in encouraging environmental responsible purchasing is also reduced because of consumers' confusion [40]; misleading information and environmental claims being perceived as lacking meanings [43], [44]. Since the role of eco-labels in predicting pro-environmental behavior is not fully understood [45], it is necessary to examine further different aspects of eco-labels and their relationship with environmental purchasing behavior.

### 2.1 General environmental knowledge

This concept can be understood as the knowledge and awareness one may have about certain environmental issues as well as the possible solutions regarding those issues [46]. Moreover, the kind of general environmental knowledge measured in this study is subjective knowledge, which means that this knowledge is what consumers believe they have regarding the subject, not the objective one that requires measurement done via factual tests [28].

### 2.2 Eco-labels and Eco-label knowledge

According to [47], eco-labels are perceived as information that is verifiable and accurate about the environmental characteristics of a product or service. The two main functions of ecolabels include informing consumers about the environmental consequences of their consumption patterns and changing these patterns; encouraging manufacturers, governments, and other organizations to raise the standards of existing products or services [48].

According to [49], there are three types of eco-labels existing in the market. Type I are labels certified by third-party programs and are usually under the support of the government. These voluntary labels present the difference in environmental quality between products labeled and others. Type II labels are claimed independently by manufacturers, importers, and distributors. Type III labels consist of pre-determined indices and offer quantified information of products labeled based on independent verification. The questionnaire distributed to consumers of this study included images of mostly Type I labels because, in comparison with other types, third-party independent eco-labels have been reported to lead to a greater level of trust in consumers [50]–[52]. This choice can help to facilitate better relationships between the eco-labels and consumers' trust in eco-labels.

Because of the inadequacy of general environmental knowledge in shaping PECEB sometimes [28], [53], [54], it is necessary to investigate context-specific knowledge because it may sometimes have a more important role in comparison with generalized knowledge [55]. Eco-label knowledge is defined by [56] as the consumers' acquaintance with the eco-label terms' meanings as well as their functional aspects.

### 2.3 Attitude towards the environment

When mentioning the factors regarded as one of the determinants of pro-environmental behavior, attitude is the most popular [4]. In this study, attitude towards the

environment refers to the subject's cognitive and affective assessment about the protection of the environment [57].

## 2.4 Trust in eco-labels

There is a need to incorporate the labels' effect in consumers' decision-making process, which means awareness and trust in eco-labels information is demanded [58], [59]. Trust is defined by [60] as the expectation an individual has about the fact that another human, a product, or an organization's promises and obligations will be kept and fulfilled.

## 2.5 Pro-environmental consumer behavior

Although there are various ways to define pro-environmental behaviors [61]–[63], the definition used in this research is that of [7], in which the behavior is defined as the consumers' purchasing action of products and services that they perceive would leave positive or (less negative) influences on the environment.

## 3. Hypothesis Development

[64] found that knowledge can be considered as an integral part of attitude. Many studies also showed that the positive relationship between consumers' knowledge about ecological issues and their attitude does exist [65]. For example, the knowledge of organic has been found to have a positive effect on organic attitude formation [65]. Moreover, general environmental knowledge was also found to influence PECB. A study of [66] discovered that lack of information can have negative impacts on green consumption behavior. Lacking necessary knowledge also led to barriers when consumers try to translate their environmental concerns into actual purchasing action [67]. In addition, [68] discovered that there is a moderation relationship between pro-environmental behavior and ecological attitude. Hypothesis H1a and H1b are established.

The high credence values hinted by ecological attributes of a product can create difficulty in customers' assessment of the claims [69] or consumers' uncertainty and confusion [40]. Thus, if consumers have trust in the eco-labels given, they will likely rely on the labels more [70]. The relationship of eco-label knowledge with PECB and attitude has been recorded. [70] found that eco-certification plays a role in motivating consumers to purchase green products. The paper of [45] also observed the significant relationship between eco-label knowledge and attitude towards the environment. The hypotheses H2a, H2b and H2c are developed.

Attitude has been regarded as one of the strongest antecedents when it comes to factors influencing ecological behavior [71], [72]. Moreover, environmental attitudes have been used to predict consumers' willingness to pay for organic products with a premium price [53], [73].

It has been found that brands recommended by the sources consumers trust will be more likely purchased by those consumers [74]. When there are no independent systems to

validate, consumers' trust in ecological claims is the base for PECB [75], and the higher the trust level, the greater the influence it has on PECB [40]. In addition, lack of trust proposes a big barrier to green purchase consumption [76], [77]. H3 and H4 are established.

There have been studies of researchers such as [25], [78], [79] where the mediating relationship between three variables can be observed. Furthermore, according to [45], in various studies about PECB, the attitude variable played mediating roles such as researches [28], [80]. The second mediation effect of eco-label knowledge- attitude towards the environment- PECB was discovered in the study of [81]. Finally, although there have been very few studies confirming the mediation relationship of co-label knowledge- trust in ecolabels –PECB besides for the study of [45], this hypothesis is still proposed to be consistent with the original model. The hypotheses H5 regarding mediating effects of environmental attitudes on general knowledge-PECB relation; H6 and H7 relating to mediation roles of eco-label knowledge and trust on eco-labels on eco-label knowledge- PECB relation are developed.

The model was inspired by TRA adopted from [45]. The conceptual framework and all hypotheses conduction are presented in Figure 1:

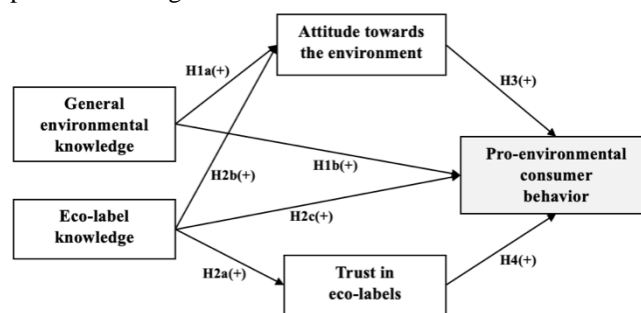


Figure 1: Research Model

## 4. Methodology

### 4.1 Measurement scale

The measurement scale used in this research was adapted from [45]. There was a total of 33 items included in the survey. The survey used a six-point Likert Scale ranging from 1 means strongly disagree to 6 equals strongly agree. Since the scale does not have a neutral mid-point, it is expected that responses can become less social-bias [82], especially for a population consisting of Asian people like Vietnamese consumers who were found to be more likely to choose mid-range responses [83]. Before the questionnaire was distributed officially, there were 15 participants included in the pilot test survey. With no major misinterpretations or difficulty in understanding were detected, correction and adjustment were not needed for the survey items.

### 4.2 Sample and data collection

Using the probabilistic method of simple random sampling, the main area for surveying was in Ho Chi Minh City, one of the biggest cities in Vietnam. According to [18], this

location choice is well justified because big cities generally have more environmental problems and the awareness level of many consumers about the subject is also higher. A sample size of 393 valid responses was collected mainly via online distribution and a smaller portion was administered in printed papers. The main target respondents are determined to be college students with the age group between 19 and 24 years old. These students are expected to have regular purchasing behaviors and high accessibility to mobile devices and the Internet to conveniently complete the online questionnaire. Subjects who are younger consumers with a high level of education have been reported to exhibit more environmental concerns, higher awareness of possible environmental damages as well as more familiarity with ecological behaviors [84]–[86].

**5. Data analysis and results**

In the process of conducting a reliability test using Cronbach’s alpha coefficient, 7 items were removed, including items such as “The amount of energy I use does not affect the environment to any significant degree”, “I would consider myself an expert in terms of my knowledge of eco-label” or “There is nothing the average citizen can do to help stop environmental pollution”. After the removal, all Cronbach’s alpha values are within the range of 0.795 to 0.911, which satisfies the threshold of above 0.7 proposed by [87]. These results demonstrate the reliability of the five selected constructs and the consistency of items included for each of them.

Next, the Exploratory Factor Analysis (EFA) as a multivariate statistical method is used to determine the

common factors that explain how the measured variables belong to certain order and structure [88]. The value of KMO is 0.889, which is considered “meritorious” and the value of the eigenvalue is also smaller than 0.05. All the factor loadings are recorded to be above 0.6 and satisfy the threshold of 0.5 after removing the mentioned items. The test shows that items satisfy the convergent and discriminant validity and the EFA test is completed.

Confirmatory Factor Analysis (CFA) tests help the researchers further reduce a pool of observed variables that are currently underlying theoretically broader concepts in a smaller number of latent factors [89]. All the indices for model fit satisfy the standards proposed by [90]. Considering the reliability validity, p-values of all relationships are higher than 0.05 and valid, as well as composite reliability check, is also completed adequately because all the numbers are greater than 0.7. In terms of convergent validity, although the AVE of PECB with a value of 0.488 is lower than 0.5, since the CR of PECB is 0.913 and higher than 0.6, PECB’s AVE is acceptable according to [91]. For testing discriminant validity of the model, the values of AVE were recorded to be higher than Maximum Shared Variance (MSV) and the numbers of Inter-Construct Correlations were lower than the Square Root of AVE (SQRTAVE), which satisfy the requirements. Overall, the dataset satisfies CFA testing.

The cutoff criteria for testing the model fit for SEM proposed by[92] is used for this research. Constructs’ properties, item loadings and some other indices are in Table 1. All the numbers excellently fit the standards of a good model.

**Table 1:** Constructs’ properties and items loadings

Constructs	Scale items	$\lambda$	$\alpha$	AVE
<b>EK</b> [93], Qualitative stage	“I know very well what the term ‘global warming’ means”	0.769***	0.88	0.651
	“I know very well what the term organic product’ means”	0.75***		
	“I know very well what the term ‘climate change’ means”	0.814***		
	“I know very well what the term greenhouse gas’ means”	0.878***		
<b>LK</b> [94], Qualitative stage	“I know the meaning of the term ‘recycled”	0.769***	0.886	0.663
	“I know the meaning of the term <i>eco-friendly</i> ”	0.817***		
	“I know the meaning of the term <i>organic</i> ”	0.843***		
	“I know the meaning of the term energy-efficient”	0.808***		
<b>AE</b> [93], [95]	“My involvement in environmental activities today will help save the environment for future generations”	0.668***	0.841	0.58
	“It is essential to promote green living in Vietnam”	0.735***		
	“I strongly support that more environmental protection works are needed in Vietnam”	0.86***		
	“It is very important to raise environmental concerns among Vietnamese people”	0.764***		
<b>LAT</b> [96]	“The labels are genuinely committed to environmental protection”	0.733***	0.795	0.569
	“Most of what labels say about its products is true”	0.83***		
	“If the label makes a claim or promise about its product, it's probably true”	0.672***		
<b>PECB</b> [7]	“When there is a choice, I always choose the product that contributes to the least amount of pollution”	0.661***	0.911	0.488
	“I use a recycling center or in some way recycle some of my household trash”	0.647***		
	“I make every effort to buy paper products made from recycled paper”	0.727***		
	“I use a low-phosphate detergent (or soap) for my laundry”	0.708***		
	“I do not buy products in aerosol containers”	0.608***		
	“Whenever possible, I buy products packaged in reusable containers”	0.669***		
	“I will not buy a product if the company that sells it is ecologically irresponsible”	0.681***		
	“I buy toilet paper made from recycled paper”	0.711***		
	“I try only to buy products that can be recycled”	0.78***		
	“I do not buy household products that harm the environment”	0.777***		
“I try to buy energy-efficient household appliances”	0.673***			

Note: EK: General environmental knowledge; LK: Eco-label knowledge; AE: Attitude towards the environment; LAT: Trust in eco-labels; PECB: Pro-environmental consumer behavior; λ: Item loading; α: Cronbach's alpha; AVE: Average variance extracted; \*\*\*p<0.01

The study then implemented the bootstrapping analysis with 5000 bootstrap samples for determining the impact of attitude towards the environment and eco-labels trust in mediating the link between environmental and eco-label knowledge and PECB. All the values relating to mediating hypotheses tested are shown in Table 2 and the indirect effect and total effect coefficients in Table 3. The result shows that the indirect effects of environmental attitude (H5) and trust in eco-labels (H7) are significant (both bias-corrected and bias-corrected and accelerated 99% and 95% CIs are conducted, the associated CI did not include zero). We confirm the validity of Hypothesis 5 and 7 but reject Hypothesis 6.

Table 2: Hypotheses Testing

Hypotheses/Path	Estimates	Results
H1a: AE<-E	.356***	Supported
H1b: PECB<-E	-.122*	Supported
H2a: LAT<-L	.281***	Supported
H2b: AE<-L	-0.015	Not supported
H2c: PECB<-L	.347***	Supported
H3: PECB<-A	.296***	Supported
H4: PECB<-T	.266***	Supported

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; IV: Independent Variable, M: Mediator, DV: Dependent Variable

Table 3: Bootstrapping on the mediating effects

H	IV-->M-->DV	Direct Effect	Indirect Effect	Total Effect
H5	EK-->AE-->PECB	-.122*	.145**	.023**
H6	LK-->AE-->PECB	.347***	-0.004	0.343
H7	LK-->LAT-->PECB	.347***	.075***	.422**

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

From the structural equation modeling analysis in Figure 2, most direct relationships are statistically significant 1%, except the insignificant paths from general environmental knowledge to pro-environmental consumer behavior and eco-label knowledge to customer attitudes towards the environment. The dotted line illustrates insignificant paths.

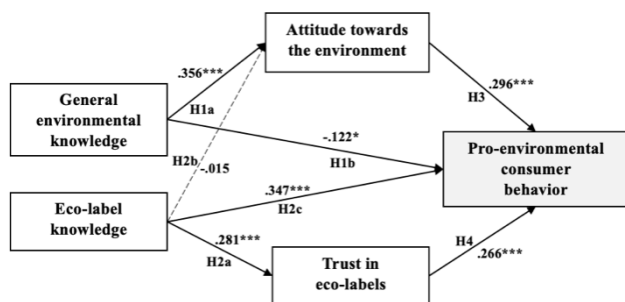


Figure 2: Hypotheses testing

There is a weak link between environmental knowledge and PECB at 10% level of significance that was discovered in this study. This might imply that even when students have a solid knowledge about the environment, they may not exhibit any environmentally responsible practices. [97] also found that environmental education was critical, although not as much as social norms and attitudes, in motivating customers to commit to PECBs. Furthermore, the study

confirms that knowledge about the environment has a considerable beneficial effect on one's attitude toward environmental concerns, which in turn elevates any pro-environmental behaviors. These findings are consistent with [98], [99], and contradict [100]. Since the study asserts both direct and indirect effects of knowledge about the environment on pro-environmental behaviors, environmental attitude is perceived as a partial mediator of this relationship.

The study also believes that eco-label knowledge constitutes customers' trust which then encourages them to perform pro-environmental behaviors. [101] supports that people who know a lot about green products are absolutely terrified of greenwashing and believe that firms using eco-labels are adhering to the greatest environmental standards. These findings confirm the arguments of [102], [103]. The partial mediating effect of trusts in eco-labels in the relationship between eco-label knowledge and pro-environmental behaviors is then argued to be statistically significant. Meanwhile, the study provides no evidence about the mediating role of attitude towards the environment in this relationship.

According to the findings, knowledge about ecolabel imposes a significant effect (via mediation) on the commitment to pro-environmental behaviors, but not attitudes to the environment. Importantly, the understanding of eco-labels would accompany general environmental knowledge in changing consumer attitudes toward the environment. The findings of ecolabel knowledge are in line with [15].

6. Conclusion and Recommendation

The main purpose of this research is to investigate the integrating role of two kinds of knowledge – general environmental knowledge and eco-label knowledge in influencing pro-environmental behaviors. The findings suggest that eco-label knowledge augments the general environmental knowledge in promoting the commitment to pro-environmental behaviors of Vietnamese consumers. Environmental attitude and trust in eco-labels both expose a mediated impact on these relationships.

Suggestions and recommendations can be made for businesses, policymakers, and the consumers themselves. It should be noted that the applications of findings depend greatly on contextual situations of adopters, therefore tailored consideration is needed. Since general environmental knowledge significantly affects any pro-environmental behaviors, businesses and the government might consider investing in educating consumers more about general concepts of the environmental problems such as “greenhouse gas” or “climate change” to shape and influence the involvement in any pro-environmental actions. Additionally, the implementation of education or marketing programs using terms such as “organic” and “eco-friendly” is also beneficial considering the significant impact of eco-label knowledge on pro-environmental behaviors. Finally,

the importance of attitude towards the environment and trust in eco-labels is also crucial due to their mediating roles in the links of general and context-specific knowledge to any PECB. It can be helpful for the authorities to promote environmental protection or green living in Vietnam as approaches to increase the ecological attitude of consumers. Manufacturers might consider investing in implementing eco-labels in their marketing campaigns because consumers are currently expressing trust for them. In terms of consumers, they can use the information provided in this study to increase their awareness of the topic of eco-labels as well as other ecological concepts.

The first limitation is that this research is concerned with the concept of subjective knowledge of consumers, which means that consumers will report their belief about their own knowledge about the environment. Further research may include objective knowledge measures to investigate the differences. The second drawback is that the research currently does not have many psychographic variables, therefore future studies can integrate these variables to examine new relationships. Thirdly, since the research is conducted with a very broad category of consumers and no particular product industry (such as agricultural products), further research can narrow down the scope by specifying these elements.

## References

- [1] K. Haws, K. Winterich, and R. Naylor, "Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products," *Wiley Online Libr.*, vol. 24, no. 3, pp. 336–354, 2014, doi: 10.1016/j.jcps.2013.11.002.
- [2] C. N. Leonidou, C. S. Katsikeas, and N. A. Morgan, "'Greening' the marketing mix: Do firms do it and does it pay off?," *J. Acad. Mark. Sci.*, vol. 41, no. 2, pp. 151–170, 2013, doi: 10.1007/s11747-012-0317-2.
- [3] J. Peloza, K. White, and J. Shang, "Good and guilt-free: The role of self-accountability in influencing preferences for products with ethical attributes," *J. Mark.*, vol. 77, no. 1, pp. 104–119, 2013, doi: 10.1509/JM.11.0454.
- [4] D. Li, L. Zhao, S. Ma, S. Shao, and L. Zhang, "What influences an individual's pro-environmental behavior? A literature review," *Resour. Conserv. Recycl.*, vol. 146, no. November 2017, pp. 28–34, 2019, doi: 10.1016/j.resconrec.2019.03.024.
- [5] S. Barr, G. Shaw, and A. W. Gilg, "The policy and practice of 'sustainable lifestyles,'" *J. Environ. Plan. Manag.*, vol. 54, no. 10, pp. 1331–1350, 2011, doi: 10.1080/09640568.2011.574996.
- [6] W. J. Hynes N, "I do it, but don't tell anyone! Personal values, personal and social norms: Can social media play a role in changing pro-environmental behaviours?," *Elsevier*, 2016, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0040162516301433>.
- [7] J. . Roberts, "Green consumers in the 1990s: profile and implications for advertising," *Elsevier*, 1996, doi: 10.1016/0148-2963(95)00150-6.
- [8] J. Thøgersen, "The Motivational roots of norms for environmentally responsible behavior," *Basic Appl. Soc. Psych.*, vol. 31, no. 4, pp. 348–362, Oct. 2009, doi: 10.1080/01973530903317144.
- [9] Y. Joshi and Z. Rahman, *Factors Affecting Green Purchase Behaviour and Future Research Directions*, vol. 3, no. 1–2. Holy Spirit University of Kaslik, 2015.
- [10] A. K. Bhardwaj, A. Garg, S. Ram, Y. Gajpal, and C. Zheng, "Research trends in green product for environment: A bibliometric perspective," *Int. J. Environ. Res. Public Health*, vol. 17, no. 22, pp. 1–21, 2020, doi: 10.3390/ijerph17228469.
- [11] M. M. Mostafa, "Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model," *J. Int. Consum. Mark.*, vol. 19, no. 2, pp. 97–126, Nov. 2006, doi: 10.1300/J046V19N02\_06.
- [12] C. D and J. KK, "Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior," *Elsevier*, 2019, Accessed: Dec. 24, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2352550918303038>.
- [13] K. Lee, "Opportunities for green marketing: Young consumers," *Mark. Intell. Plan.*, vol. 26, no. 6, pp. 573–586, 2008, doi: 10.1108/02634500810902839/FULL/HTML.
- [14] The Prime Minister, "Decision No. 76/QĐ-TTĐ Dated January 11, 2016 on Approval the National Action Program on Sustainable Consumption and Production by 2020, with a Vision to 2030," *GIZ Energy Support Programme*, 2016. <http://gizenergy.org.vn/media/app/media/legal documents/76qd-ttg16-jan-2016-en.pdf> (accessed Dec. 24, 2021).
- [15] H. T. Nguyen and H. T. Le, "The effect of agricultural product eco-labelling on green purchase intention," *Manag. Sci. Lett.*, vol. 10, no. 12, pp. 2813–2820, 2020, doi: 10.5267/j.msl.2020.4.028.
- [16] T. P. Nguyen and S. Dekhili, "Sustainable development in Vietnam: An examination of consumers' perceptions of green products," *Bus. Strateg. Dev.*, vol. 2, no. 2, pp. 127–136, 2019, doi: 10.1002/bsd.248.
- [17] Phan Trang, "'Sản phẩm xanh': Xu hướng tiêu dùng mới của người Việt," *BÁO ĐIỆN TỬ CHÍNH PHỦ NƯỚC CHXHCN VIỆT NAM*, 2017. <http://baochinhphu.vn/kinh-te/san-pham-xanh-xu-huong-g-tieu-dung-moi-cua-nguoi-viet/307057.vgp> (accessed Dec. 24, 2021).
- [18] H. V. Nguyen, C. H. Nguyen, and T. T. B. Hoang, "Green consumption: Closing the intention-behavior gap," *Sustain. Dev.*, vol. 27, no. 1, pp. 118–129, 2019, doi: 10.1002/sd.1875.
- [19] I. Ajzen, "From Intentions to Actions: A Theory of Planned Behavior," *Action Control*, pp. 11–39, 1985, doi: 10.1007/978-3-642-69746-3\_2.
- [20] M. Ajzen, I., & Fishbein, "The Influence of Attitudes on Behavior," *Handb. Attitudes*, no. January 2005, pp. 187–236, 2005, doi: 10.4324/9781410612823-13.
- [21] F. Olander and J. Thøgersen, "Understanding of consumer behaviour as a prerequisite for environmental protection," *J. Consum. Policy*, vol. 18,

- no. 4, pp. 345–385, Dec. 1995, doi: 10.1007/BF01024160.
- [22] P. Stern, T. Dietz, T. Abel, G. Guagnano, and L. Kalof, “A value-belief-norm theory of support for social movements: The case of environmentalism,” *JSTOR*, 1999, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.jstor.org/stable/24707060>.
- [23] G. A. Guagnano, P. C. Stern, and T. Dietz, “Influences on Attitude-Behavior Relationships: A Natural Experiment with Curbside Recycling,” *Environ. Behav.*, vol. 27, no. 5, pp. 699–718, 1995, doi: 10.1177/0013916595275005.
- [24] S. Bamberg, G. M.-J. of environmental psychology, and undefined 2007, “Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour,” *Elsevier*, vol. 27, pp. 14–25, 2007, doi: 10.1016/j.jenvp.2006.12.002.
- [25] B. Flamm, “The impacts of environmental knowledge and attitudes on vehicle ownership and use,” *Elsevier*, 2009, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1361920909000285>.
- [26] F. Kaiser, S. Wölfing, U. F.-J. of environmental Psychology, and U. 1999, “Environmental attitude and ecological behaviour,” *Elsevier*, 1999, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0272494498901074>.
- [27] S. Oreg and T. Katz-Gerro, “Predicting proenvironmental behavior cross-nationally: Values, the theory of planned behavior, and value-belief-norm theory,” *journals.sagepub.com*, vol. 38, no. 4, pp. 462–483, Jul. 2006, doi: 10.1177/0013916505286012.
- [28] M. J. Polonsky, A. Vocino, S. L. Grau, R. Garma, and A. S. Ferdous, “The impact of general and carbon-related environmental knowledge on attitudes and behaviour of US consumers,” *J. Mark. Manag.*, vol. 28, no. 3–4, pp. 238–263, Mar. 2012, doi: 10.1080/0267257X.2012.659279.
- [29] D. Ceglia and L. Á. de Oliveira Lima SH, “An alternative theoretical discussion on cross-cultural sustainable consumption,” *Wiley Online Libr.*, vol. 23, no. 6, pp. 414–424, Dec. 2015, doi: 10.1002/sd.1600.
- [30] H. A. Hanss D, Böhm G, Doran R, “Sustainable consumption of groceries: The importance of believing that one can contribute to sustainable development,” *Wiley Online Libr.*, vol. 24, no. 6, pp. 357–370, Nov. 2016, doi: 10.1002/sd.1615.
- [31] K. Peattie, “Green consumption: Behavior and norms,” *Annu. Rev. Environ. Resour.*, vol. 35, pp. 195–228, Nov. 2010, doi: 10.1146/ANNUREV-ENVIRON-032609-094328.
- [32] T. Mainieri, E. G. Barnett, T. R. Valdero, J. B. Unipan, and S. Oskamp, “Green buying: The influence of environmental concern on consumer behavior,” *J. Soc. Psychol.*, vol. 137, no. 2, pp. 189–204, Apr. 1997, doi: 10.1080/00224549709595430.
- [33] M. Carrington, B. Neville, G. W.-J. of business ethics, and undefined 2010, “Why ethical consumers don’t walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of,” *Springer*, vol. 97, no. 1, pp. 139–158, 2010, doi: 10.1007/s10551-010-0501-6.
- [34] F. Thøgersen, J & Olander, “Spillover of environment-friendly consumer behaviour,” *Elsevier*, 2003, Accessed: Dec. 17, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0272494403000185>.
- [35] S. Padel and C. Foster, “Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food,” *Br. Food J.*, vol. 107, no. 8, pp. 606–625, 2005, doi: 10.1108/00070700510611002/FULL/HTML.
- [36] Ecolabel Index, “All ecolabels in Vietnam,” *Ecolabel Index*, 2021. <https://www.ecolabelindex.com/ecolabels/?st=country,vn> (accessed Dec. 25, 2021).
- [37] E. Tang, G. E. Fryxell, and C. S. F. Chow, “Visual and verbal communication in the design of eco-label for green consumer products,” *J. Int. Consum. Mark.*, vol. 16, no. 4, pp. 85–105, 2004, doi: 10.1300/J046v16n04\_05.
- [38] M. Teisl, B. Roe, and RL Hicks, “Can eco-labels tune a market? Evidence from dolphin-safe labeling,” *Elsevier*, 2002, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0095069600911860>.
- [39] C. Daugbjerg, S. Smed, L. M. Andersen, and Y. Schwartzman, “Improving Eco-labelling as an Environmental Policy Instrument: Knowledge, Trust and Organic Consumption,” *J. Environ. Policy Plan.*, vol. 16, no. 4, pp. 559–575, 2014, doi: 10.1080/1523908X.2013.879038.
- [40] F. Testa, F. Iraldo, A. Vaccari, and E. Ferrari, “Why eco-labels can be effective marketing tools: Evidence from a study on Italian consumers,” *Bus. Strateg. Environ.*, vol. 24, no. 4, pp. 252–265, 2015, doi: 10.1002/bse.1821.
- [41] J. Thøgersen, P. Haugaard, and A. Olesen, “Consumer responses to ecolabels,” *Eur. J. Mark.*, vol. 44, no. 11, pp. 1787–1810, 2010, doi: 10.1108/03090561011079882.
- [42] R. E. Horne, “Limits to labels: The role of eco-labels in the assessment of product sustainability and routes to sustainable consumption,” *Int. J. Consum. Stud.*, vol. 33, no. 2, pp. 175–182, 2009, doi: 10.1111/j.1470-6431.2009.00752.x.
- [43] P. M. Carlson L, Grove SJ, Kangun N, “An international comparison of environmental advertising: substantive versus associative claims,” *journals.sagepub.com*, vol. 16, no. 2, pp. 57–68, 1996, doi: 10.1177/027614679601600205.
- [44] L. TP and Montgomery AW, “The means and end of greenwash,” *journals.sagepub.com*, vol. 28, no. 2, pp. 223–249, Jun. 2015, doi: 10.1177/1086026615575332.
- [45] K. M. R. Taufique, A. Vocino, and M. J. Polonsky, “The influence of eco-label knowledge and trust on pro-environmental consumer behaviour in an emerging market,” *J. Strateg. Mark.*, vol. 25, no. 7, pp. 511–529, 2017, doi: 10.1080/0965254X.2016.1240219.
- [46] Á. Zsóka and K. T. Szerényi ZM, Széchy A, “Greening due to environmental education? Environmental knowledge, attitudes, consumer

- behavior and everyday pro-environmental activities of Hungarian high,” *Elsevier*, 2013, doi: 10.1016/j.jclepro.2012.11.030.
- [47] ISO, “Environmental labels and declarations,” 1999. <https://www.iso.org/obp/ui/#iso:std:iso:14024:ed-1:v1:en> (accessed Dec. 30, 2021).
- [48] I. Galarraga Gallastegui, “The use of eco-labels: A review of the literature,” *Eur. Environ.*, vol. 12, no. 6, pp. 316–331, 2002, doi: 10.1002/eet.304.
- [49] OECD, “Eco-Labeling: Actual Effects of Selected Programme,” Paris, 1997.
- [50] L. Atkinson and S. Rosenthal, “Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust,” *J. Advert.*, vol. 43, no. 1, pp. 33–45, 2014, doi: 10.1080/00913367.2013.834803.
- [51] JJ McCluskey, “A game theoretic approach to organic foods: An analysis of asymmetric information and policy,” *cambridge.org*, 2000, Accessed: Dec. 27, 2021. [Online]. Available: <https://www.cambridge.org/core/journals/agricultural-and-resource-economics-review/article/game-theoretic-approach-to-organic-foods-an-analysis-of-asymmetric-information-and-policy/9A13EEB8AD227616A41BE4971FA34546>.
- [52] R. Gertz, “Eco-labelling—a case for deregulation?,” *academic.oup.com*, vol. 4, pp. 127–141, 2005, doi: 10.1093/lpr/mgi010.
- [53] M. Laroche, J. Bergeron, and G. Barbaro-Forleo, “Targeting consumers who are willing to pay more for environmentally friendly products,” *J. Consum. Mark.*, vol. 18, no. 6, pp. 503–520, 2001, doi: 10.1108/EUM00000000006155/FULL/HTML.
- [54] J. Schahn and E. Holzer, “Studies of individual environmental concern: The Role of Knowledge, Gender, and Background Variables,” *Environ. Behav.*, vol. 22, no. 6, pp. 767–786, 1990, doi: 10.1177/0013916590226003.
- [55] A. Minton and R. Rose, “The effects of environmental concern on environmentally friendly consumer behavior: An exploratory study,” *Elsevier*, 1997, Accessed: Dec. 27, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0148296396002093>.
- [56] K. M. R. Taufique, C. Siwar, B. Talib, F. H. Sarah, and N. Chamhuri, “Synthesis of constructs for modeling consumers’ understanding and perception of eco-labels,” *Sustain.*, vol. 6, no. 4, pp. 2176–2200, 2014, doi: 10.3390/su6042176.
- [57] S. Bamberg, “How does environmental concern influence specific environmentally related behaviors? A new answer to an old question,” *Elsevier*, vol. 23, pp. 21–32, 2003, Accessed: Dec. 27, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0272494402000786>.
- [58] KG Grunert, “Sustainability in the food sector: A consumer behaviour perspective,” *centmapress.ilb.uni-bonn.de*, 2011, Accessed: Dec. 22, 2021. [Online]. Available: <http://centmapress.ilb.uni-bonn.de/ojs/index.php/fsd/article/view/232>.
- [59] J. Thøgersen, “Psychological determinants of paying attention to eco-labels in purchase decisions: Model development and multinational validation,” *J. Consum. Policy*, vol. 23, no. 3, pp. 285–313, 2000, doi: 10.1023/A:1007122319675.
- [60] F. Perrini, S. Castaldo, N. Misani, and A. Tencati, “The impact of corporate social responsibility associations on trust in organic products marketed by mainstream retailers: a study of Italian consumers,” *Wiley Online Libr.*, vol. 19, no. 8, pp. 512–526, Dec. 2010, doi: 10.1002/bse.660.
- [61] I. Klöckner, CA & Oppedal, “General vs. domain specific recycling behaviour—Applying a multilevel comprehensive action determination model to recycling in Norwegian student homes,” *Elsevier*, 2011, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0921344910002648>.
- [62] L. Eriksson, J. Garvill, and A. Nordlund, “Acceptability of single and combined transport policy measures: The importance of environmental and policy specific beliefs,” *Elsevier*, 2008, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0965856408000827>.
- [63] L. J. Ramayah T and M. O, “Green product purchase intention: Some insights from a developing country,” *Elsevier*, 2010, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0921344910001448>.
- [64] L. R. Fabrigar, R. E. Petty, S. M. Smith, and S. L. Crites, “Understanding knowledge effects on attitude-behavior consistency: The role of relevance, complexity, and amount of knowledge,” *J. Pers. Soc. Psychol.*, vol. 90, no. 4, pp. 556–577, 2006, doi: 10.1037/0022-3514.90.4.556.
- [65] S. Smith and A. Paladino, “Eating clean and green? Investigating consumer motivations towards the purchase of organic food,” *Australas. Mark. J.*, vol. 18, no. 2, pp. 93–104, May 2010, doi: 10.1016/J.AUSMJ.2010.01.001.
- [66] K. Y. H. Connell, “Internal and external barriers to eco-conscious apparel acquisition,” *Int. J. Consum. Stud.*, vol. 34, no. 3, pp. 279–286, 2010, doi: 10.1111/J.1470-6431.2010.00865.X.
- [67] W. K. S. Tanner C, “Promoting sustainable consumption: Determinants of green purchases by Swiss consumers,” *Wiley Online Libr.*, vol. 20, no. 10, pp. 883–902, 2003, doi: 10.1002/mar.10101.
- [68] E. Fraj-Andrés and E. Martínez-Salinas, “Impact of environmental knowledge on ecological consumer behaviour: An empirical analysis,” *J. Int. Consum. Mark.*, vol. 19, no. 3, pp. 73–102, Apr. 2007, doi: 10.1300/J046V19N03\_05.
- [69] R. S. Atkinson L, “Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust,” *Taylor Fr.*, vol. 43, no. 1, pp. 33–45, Jan. 2014, doi: 10.1080/00913367.2013.834803.
- [70] W. Young, K. Hwang, S. McDonald, and C. Oates, “Sustainable consumption: green consumer behaviour when purchasing products,” *Wiley Online Libr.*, vol. 18, no. 1, pp. 20–31, Jan. 2010, doi: 10.1002/sd.394.
- [71] R. Ballantyne, J. P.-E. E. Research, and U. 2005,



- “Promoting environmentally sustainable attitudes and behaviour through free-choice learning experiences: what is the state of the game?,” *Taylor Fr.*, 2005, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.tandfonline.com/doi/abs/10.1080/13504620500081145>.
- [72] V. Wells, C. Ponting, and K. Peattie, “Behaviour and climate change: Consumer perceptions of responsibility,” *Taylor Fr.*, vol. 27, no. 7–8, pp. 808–833, Jul. 2011, doi: 10.1080/0267257X.2010.500136.
- [73] [73] S. B. Diamantopoulos A, B. GM, and Sinkovics RR, “Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation,” *Elsevier*, 2003, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0148296301002417>.
- [74] [74] C. Oates, S. McDonald, P. Alevizou, K. Hwang, W. Young, and L. A. & McMorland, “Marketing sustainability: Use of information sources and degrees of voluntary simplicity,” *Taylor Fr.*, vol. 14, no. 5, pp. 351–365, Nov. 2008, doi: 10.1080/13527260701869148.
- [75] [75] F. D. Mayer, R. C., Davis, J. H., & Schoorman, “An integrative model of organizational trust,” *journals.aom.org*, vol. 20, no. 3, pp. 709–734, 1995, Accessed: Dec. 22, 2021. [Online]. Available: <https://journals.aom.org/doi/abs/10.5465/AMR.1995.9508080335>.
- [76] [76] S. Gupta and D. T. Ogden, “To buy or not to buy? A social dilemma perspective on green buying,” *J. Consum. Mark.*, vol. 26, no. 6, pp. 378–393, Jun. 2009, doi: 10.1108/07363760910988201/FULL/HTML.
- [77] [77] S. J. Tung, C. C. Shih, S. Wei, and Y. H. Chen, “Attitudinal inconsistency toward organic food in relation to purchasing intention and behavior: An illustration of Taiwan consumers,” *Br. Food J.*, vol. 114, no. 7, pp. 997–1015, Jun. 2012, doi: 10.1108/00070701211241581/FULL/HTML.
- [78] [78] T. Arcury, “Environmental Attitude and Environmental Knowledge,” *Hum. Organ.*, vol. 49, no. 4, pp. 300–304, 1990, doi: 10.17730/humo.49.4.y6135676n433r880.
- [79] [79] N. Barber, C. Taylor, and S. Strick, “Wine consumers’ environmental knowledge and attitudes: Influence on willingness to purchase,” *pdfs.semanticscholar.org*, pp. 1–59, 2009, Accessed: Dec. 22, 2021. [Online]. Available: <https://pdfs.semanticscholar.org/a2d6/a1d8bcb7325826ca7ae6f5cbd8fa2dbc017c.pdf>.
- [80] [80] J. Davies, G. R. Foxall, and J. Pallister, “Beyond the intention-behaviour mythology: An integrated model of recycling,” *Mark. Theory*, vol. 2, no. 1, pp. 29–113, 2002, doi: 10.1177/1470593102002001645.
- [81] [81] M. G. McEachern and G. Warnaby, “Exploring the relationship between consumer knowledge and purchase behaviour of value-based labels,” *Int. J. Consum. Stud.*, vol. 32, no. 5, pp. 414–426, 2008, doi: 10.1111/J.1470-6431.2008.00712.X.
- [82] [82] R. Garland, “The mid-point on a rating scale: Is it desirable,” *scorevoting.net*, vol. 2, pp. 66–70, 1991, Accessed: Jan. 01, 2022. [Online]. Available: [http://scorevoting.net/MB\\_V2\\_N3\\_Garland.pdf](http://scorevoting.net/MB_V2_N3_Garland.pdf).
- [83] [83] A. Harzing, M. Brown, K. Köster, and S. Zhao, “Response style differences in cross-national research,” *Springer*, 2012, Accessed: Jan. 01, 2022. [Online]. Available: <https://link.springer.com/content/pdf/10.1007/s11575-011-0111-2.pdf>.
- [84] N. López-Mosquera, F. Lera-López, and M. Sánchez, “Key factors to explain recycling, car use and environmentally responsible purchase behaviors: a comparative perspective,” *Elsevier*, 2015, Accessed: Jan. 01, 2022. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S092134491500052X>.
- [85] R. E. Van Liere, K. D., & Dunlap, “Environmental concern: Does it make a difference how it’s measured?,” *journals.sagepub.com*, 1981, Accessed: Jan. 01, 2022. [Online]. Available: <https://journals.sagepub.com/doi/abs/10.1177/0013916581136001>.
- [86] J. Welsch, H., & Kühling, “Pro-environmental behavior and rational consumer choice: Evidence from surveys of life satisfaction,” *Elsevier*, 2010, Accessed: Jan. 01, 2022. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0167487010000164>.
- [87] J. M. Bland and D. G. Altman, “Cronbach’s alpha,” *BMJ*, vol. 314, no. 7080, p. 572, Feb. 1997, doi: 10.1136/BMJ.314.7080.572.
- [88] M. Watkins, “Exploratory factor analysis: A guide to best practice,” *journals.sagepub.com*, vol. 44, no. 3, pp. 219–246, Apr. 2018, doi: 10.1177/0095798418771807.
- [89] SagePub, “Learn to Perform a Confirmatory Factor Analysis (CFA) in SPSS AMOS With Data From the International Sponsorship Study,” 2016. <https://methods.sagepub.com/dataset/howtoguide/cfa-iss-2016> (accessed Jan. 02, 2022).
- [90] L. Hu and P. Bentler, “Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives,” *Taylor Fr.*, vol. 6, no. 1, pp. 1–55, 2009, doi: 10.1080/10705519909540118.
- [91] C. Fornell and D. F. Larcker, “Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics,” *J. Mark. Res.*, vol. 18, no. 3, pp. 382–388, Aug. 1981, doi: 10.1177/002224378101800313.
- [92] L. Hu and P. Bentler, “Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives,” *Taylor Fr.*, vol. 6, no. 1, pp. 1–55, 1999, doi: 10.1080/10705519909540118.
- [93] G. Stone, J. H. Barnes, and C. Montgomery, “Ecoscale: a scale for the measurement of environmentally responsible consumers,” *Wiley Online Libr.*, vol. 12, no. 7, pp. 595–612, 1995, doi: 10.1002/mar.4220120704.
- [94] C. Chang, “The interplay of product class knowledge and trial experience in attitude formation,” *Taylor Fr.*, 2004, Accessed: Dec. 22, 2021. [Online]. Available: <https://www.tandfonline.com/doi/abs/10.1080/00913367.2004.10639156>.

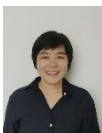
- [95] K. Lee, "The role of media exposure, social exposure and biospheric value orientation in the environmental attitude-intention-behavior model in adolescents," *J. Environ. Psychol.*, vol. 31, no. 4, pp. 301–308, 2011, doi: 10.1016/j.jenvp.2011.08.004.
- [96] G. C. Bruner II, *Marketing scales handbook; a compilation of multi-item measures for consumer behaviour & advertising research*. Illinois: USA: GCBII Productions, 2009.
- [97] A. J. Heeren, A. S. Singh, A. Zwickle, T. M. Koontz, K. M. Slagle, and A. C. McCreery, "Is sustainability knowledge half the battle?: An examination of sustainability knowledge, attitudes, norms, and efficacy to understand sustainable behaviours," *Int. J. Sustain. High. Educ.*, vol. 17, no. 5, pp. 613–632, 2016, doi: 10.1108/IJSHE-02-2015-0014/FULL/HTML.
- [98] M. C. Mifsud, "An investigation on the environmental knowledge, attitudes and behavior of Maltese youth," *Educ. Rev. B*, vol. 3, pp. 413–422, 2011, Accessed: Jan. 16, 2022. [Online]. Available: <https://www.um.edu.mt/library/oar/handle/123456789/56220>.
- [99] S. Oreg and T. Katz-Gerro, "Predicting proenvironmental behavior cross-nationally: Values, the theory of planned behavior, and value-belief-norm theory," *Environ. Behav.*, vol. 38, no. 4, pp. 462–483, 2006, doi: 10.1177/0013916505286012.
- [100] M. Heyl, E. Moyano Díaz, and L. Cifuentes, "Environmental attitudes and behaviors of college students: A case study conducted at a Chilean university," *scielo.org.co*, 2013, Accessed: Jan. 16, 2022. [Online]. Available: [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=s0120-05342013000300013](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=s0120-05342013000300013).
- [101] D. Hameed and I. Waris, "Eco labels and eco conscious consumer behavior: the mediating effect of green trust and environmental concern," *papers.ssrn.com*, 2018, Accessed: Jan. 16, 2022. [Online]. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3326736](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3326736).
- [102] L. Atkinson and S. Rosenthal, "Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust," *Taylor Fr.*, vol. 43, no. 1, pp. 33–45, Jan. 2014, doi: 10.1080/00913367.2013.834803.
- [103] F. Testa, F. Iraldo, A. Vaccari, and E. Ferrari, "Why eco-labels can be effective marketing tools: Evidence from a study on Italian consumers," *Bus. Strateg. Environ.*, vol. 24, no. 4, pp. 252–265, May 2015, doi: 10.1002/BSE.1821.

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