

Antecedents of Green Advertisement Credibility

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Abstract

Previous research in advertising reveals that consumers use a set of existing knowledge, including persuasion knowledge, topic knowledge, and agent knowledge, to form evaluations and responses to advertising messages (i.e., Friestad & Wright, 1994). Based on the persuasion knowledge model, schema congruity theory, regulatory focus theory, regulatory fit theory, and self-construal theory, this thesis investigates a framework of how consumers use these three types of knowledge to judge the credibility of green advertisements. This thesis then seeks to further explain why and how consumers in various cultures perceive different levels of credibility when they are exposed to the same green products' advertisements.

Two online experiments conducted in Vietnam and one in-person experiment conducted in both Vietnam and New Zealand demonstrate that in order to form evaluations of green message credibility, consumers recall both persuasion knowledge and topic knowledge. They use more persuasion knowledge when their cognitive resources are unconstrained than when their cognitive resources are constrained, and if they use a higher level of persuasion knowledge to process information and think that the advertisement is effective, they will have a higher perception of message credibility. Consumers use topic knowledge in the same manner, regardless of whether their cognitive resources are constrained or unconstrained. To evaluate brand credibility, consumers recall brand knowledge, and they use more brand knowledge when their cognitive resources are constrained than when their cognitive resources are unconstrained. Findings also reveal that consumers will perceive a higher level of message effectiveness and message credibility when the advertised message is framed in accordance with consumers' chronic regulatory orientation. This is the case regardless of whether consumers are from an independent culture, where most people have a stronger promotion-focused orientation, or from an interdependent culture, where most people have a stronger prevention-focused orientation.

The findings of this thesis expand the literature on the persuasion knowledge model and the evaluation of credibility in the context of green advertising. The findings document the positive effects of the use of persuasion knowledge on green message credibility, which is often overlooked in previous research. The studies contained in this thesis incorporate three types of knowledge in a framework and reveal when consumers use

one type of knowledge more than others to evaluate green advertisement credibility. Ultimately, the comparative approach between cultures further allows for generalization of effects observed in an Eastern context to extend to global consumers and allows for clear sets of implications to be articulated about how green brands can achieve perceptions of message effectiveness.

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Hoang Anh Tho Truong

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Ethics approval of this thesis was granted on 28 June 2017 until 27 June 2020 by the Auckland University of Technology Ethics Committee (AUTEC), as shown in Appendix L (AUTEC reference number: 17/200).

CHAPTER 1: INTRODUCTION

1.1 Research problem

In recent years, environmental concerns have consistently been a notable topic worldwide, as people encounter more negative effects of environmental degradation (Herédia-Colaço & Coelho do Vale, 2018; Nielsen, 2018a). Recent natural disasters such as the deadly wildfires in California and the devastating flooding and mudslides in Japan in July 2018 provide mounting evidence of climate change. Scientists have predicted that the weather in the globe will continue to become more extreme within the next few years (Jillani, 2018). As people pay more attention to issues related to the environment, they have a tendency to adjust their shopping habits and expect companies to implement programs to improve the environment (Kim & Yoon, 2017; Nielsen, 2018b). According to surveys conducted by Nielsen, about 66% of global consumers express their intention to pay more for eco-friendly products (Nielsen, 2015) and more than 80% of global respondents expect that companies should do something to help the environment (Nielsen, 2018a). Thus, engaging in green marketing activities have become a great opportunity for companies to show their responsibility towards the environment and consequently, strengthen and deepen the connection between companies and consumers.

The idea of green marketing emerged in the late 1980s and since then, many companies have started to take steps to go green (Peattie & Crane, 2005). Companies engage in green marketing activities in many ways, from changing to a cleaner production process, adopting greener technologies, sponsoring sustainable events, to produce and promote the consumption of environmentally friendly products (VanDyke & Tedesco, 2016). Of these, one of the popular methods companies use to catch the green trend is to launch new eco-friendly product lines and put effort into strategic communication, such as advertising campaigns which emphasize the benefits of the new product lines to the environment (VanDyke & Tedesco, 2016). However, there is an ongoing concern about the truthfulness of environmental claims of sustainable products (or green products) in green advertisements (Bonini et al., 2008; Peattie, 2010; Schmuck et al., 2018a; Schmuck et al., 2018b). When consumers suspect a green advertising message of deception, they are more likely to adopt an unfavorable attitude toward the

advertisement and the green brand (Tucker et al., 2012b), which can lead to unfavorable behaviors and lower purchase intent (Choi & Rifon, 2002; Goldsmith et al., 2000). Therefore, insight into perceived green advertisement credibility is highly relevant for firms pursuing green marketing or corporate social responsibility positioning. Research that helps determine when consumers believe green advertising efforts are credible allows companies to design better advertising strategies to enhance their effects on consumers.

1.2 Research rationale

Since the 1990s, scholars have applied the persuasion knowledge model (Friestad & Wright, 1994) to investigate how consumers interpret and form evaluations when being exposed to advertisements. Previous studies have concluded that the activation of persuasion knowledge can result in unfavorable evaluations, such as increased skepticism (Koslow, 2000) and greater perceived deception (Aguirre-Rodriguez, 2013). However, the picture is far more complicated than these studies suggest, especially in the evaluation of green advertisement credibility. This is because consumers may be more open to a persuasion tactic if they find it effective, advertisements of environmentally friendly products have some unique characteristics which can influence consumer evaluations, and topic knowledge, as well as agent knowledge can cue different processes in consumer thinking about advertising attempts.

First, most studies in the advertising context approach persuasion knowledge from the perspective that consumers' primary goal is to resist persuasion tactics. Therefore, consumers' coping strategy is to seek to discount advertisements if they know that they are being persuaded. However, consumers have various goals (e.g. refining their relationship with advertisers, enriching knowledge of advertising tactics and advertisers) and different coping strategies (e.g. focusing on analyzing the nature of the tactics or the content of the advertising message; Friestad & Wright, 1994). Thus, it is possible that the activation of persuasion knowledge does not always lead to the disbelief of advertisements. Indeed, there is evidence that the activation of persuasion knowledge can lead to positive outcomes, such as higher advertisement evaluations (Isaac & Grayson, 2017). Besides, the perception of the methods advertisers use to affect consumers carries meaning for consumers' responses such as attitudes towards the advertising messages (Friestad & Wright, 1994). When consumers use persuasion knowledge to evaluate advertisements' credibility, it may not be meaningful whether

consumers perceive that the actions of advertisers are persuasion intents, but rather whether they perceive those persuasion tactics to be effective.

Second, previous studies have shown that green advertisements can induce contextual thoughts which influence consumers' self-view perspectives and perceived regulatory fit (Kareklas et al., 2012). This can potentially influence the perceived tactic effectiveness and consequently, affect the credibility evaluation of consumers. Third, previous research in the advertising context primarily focuses on persuasion knowledge, as opposed to agent knowledge and topic knowledge – two other important aspects of the persuasion knowledge model, which can also influence consumer evaluations (Campbell & Kirmani, 2012). There is a lack of research on the integration of the three types of knowledge in the evaluation of advertisements. Therefore, there is a need to conduct an in-depth investigation into the framework of how consumers use their existing knowledge (persuasion knowledge, topic knowledge, and agent knowledge) to evaluate the credibility of green advertisements. Understanding this framework not only attempts to fill gaps in the literature on the use of the persuasion knowledge model in green advertisement research, but also helps marketers design more effective and credible green advertisements to increase the consumption of eco-friendly products.

Further, although there is research on how to create effective and credible green advertisements, the majority of these studies have been conducted in independent cultures, where independence is highly regarded, such as the United States. Little is known about green advertisements' characteristics in interdependent cultures, where connections with others are highly regarded, such as Vietnam. Differences between national cultures are a significant factor influencing consumers' decision-making processes (Briley et al., 2000) and attitudes towards green advertisements (Okan & Yalman, 2014). Thus, besides the need for the investigation of effective and credible green advertisements in independent cultures, it is necessary to explore how to create effective and credible green advertising messages in interdependent cultures to boost the consumption of these products in contexts outside of independent cultures.

1.3 Research questions

The purpose of this thesis is to develop a framework to help understand the way consumers form credibility evaluations when they are exposed to advertisements of eco-friendly products, for the first time exploring the “black box” that links the activation of

persuasion knowledge to the resulting judgements of credibility that in the world of sustainable brands is particularly vital to ultimate brand performance. Ultimately, this thesis explores the impact of individuals' regulatory focus on evaluations of consumers from an interdependent culture and of those from an independent culture to shed light on the influence of cultural differences on consumer evaluations. This thesis will address the following research questions:

RQ1: How do consumers use their existing knowledge (persuasion knowledge, agent knowledge, and topic knowledge) to evaluate green advertisement credibility?

RQ2: How and when are advertisements of green products perceived by consumers in different cultures (independent culture vs. interdependent culture) as being effective and credible?

From a marketing perspective, the author of this thesis does not focus on mainstream advertising theories to address these research questions and instead, explores various marketing theories in the literature, such as the persuasion knowledge model, the regulatory focus theory, and the schema congruity theory to get insights into the green consumer marketing field. The research method used in this thesis is randomized experimental research, as this is one of the most effective research methods to explore causal relationships between variables (Curtis & Curtis, 2011). Before developing studies to test the hypotheses, two pretests were designed to determine stimuli to be used in main studies. Then, two online-experiments were conducted to address research question 1. Finally, an in-person experiment was conducted to address research question 2. Data collected were analyzed using IBM SPSS Statistics version 23. Descriptive statistics, Fisher's exact test, two-tailed independent sample t-test, Chi-square goodness-of-fit test, ANOVA test, moderated mediation analysis based on Hayes (2017), and regression analysis were employed to test hypotheses in this thesis.

1.4 Overview of thesis

This thesis consists of six chapters which are linked together to provide a deep understanding of the related literature and to offer comprehensive studies to address the research questions above. The structure of this thesis is presented in Figure 1.1 below.

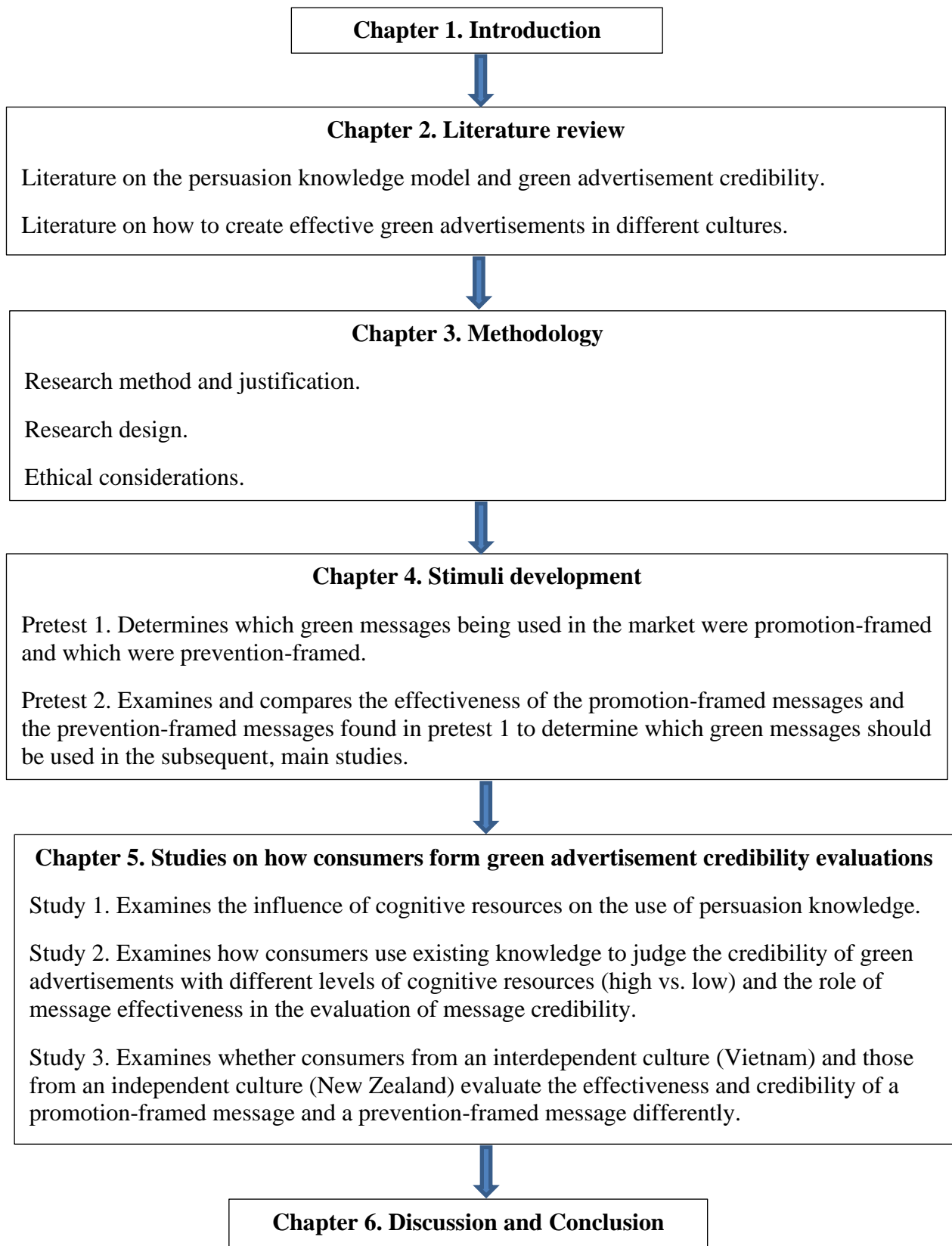


Figure 1.1. An overview of the thesis

1.5 Contributions to marketing theory and practice

This thesis aims to extend the literature on the impact of persuasion knowledge model (Friestad & Wright, 1994) on consumer evaluations in the context of green advertising. By incorporating three types of knowledge — persuasion knowledge, topic knowledge, and agent knowledge — in a comprehensive framework, the research in this thesis is the first to provide a complete view on how consumers use their existing knowledge to evaluate green advertisement credibility. In addition, while previous research mainly focuses on the negative impacts of persuasion knowledge, this thesis introduces a new factor: perceived message effectiveness, which influences the impact of persuasion knowledge on green advertisement evaluations in a positive way, contributing to the literature of possible influences of persuasion knowledge on consumer evaluations. Understanding how the three types of knowledge work and the impacts of perceived message effectiveness will help advertisers draw resources to concentrate on the right influential factors to achieve their advertising goals. Along with the extension of literature on the persuasion knowledge model, this thesis also provides further evidence about the effects of regulatory focus (Higgins, 1996) and regulatory fit (Higgins, 2000) in the green advertising context. For the first time this thesis compares the impact of chronic regulatory focus on consumer responses to green advertisements in two different cultures: Vietnam (an interdependent culture) and New Zealand (an independent culture). Insights into the influence of differences in individuals' regulatory orientation will help advertisers know what green message is considered as being effective and credible for consumers in different cultures and how advertisers should frame green messages in advertisements of eco-friendly products to attract more consumers.

1.6 Conclusion

This chapter outlines an overview of the importance of investigating antecedents of green advertisement credibility and the rationale of this thesis, which help form research questions, the structure of the thesis, and potential contributions to marketing theory and practice. The next chapter discusses the relevant literature on research focus and develops hypotheses to address the research questions posed in Chapter 1.

CHAPTER 2: LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Introduction

This chapter consists of two parts. The first part (from section 2.2 to section 2.6) reviews the literature on the persuasion knowledge model and green advertisement credibility. It explains the main characteristics of green advertisements, provides an insight into how consumers use preexisting knowledge (persuasion knowledge, topic knowledge, and agent knowledge) to evaluate green message credibility and green brand credibility. An important factor which can influence the use of these three types of knowledge — cognitive resources — is also discussed. The second part focuses on the literature on how to create effective green advertisements in different cultures, as message effectiveness can play a significant role in the evaluation of green advertisement credibility. This part presents literature on various theories (e.g. schema congruity theory, regulatory focus theory, self-construal theory) and discusses evidence from research on green advertisements to reveal how green messages should be framed to boost the perceived message effectiveness in different cultures. Because the majority of data in this thesis were collected from an interdependent culture, Vietnam, characteristics of Vietnamese culture and cataloging examples are explored at the end of the second part. These two sections help better ground the context of green advertisement receptivity by consumers in Vietnam. Following this literature review, the conceptual framework is introduced and hypotheses are developed. Table 2.1 and Table 2.2 below show the detailed information about what is investigated in the two parts of this thesis.

Table 2.1. Topics in part 1 of the literature review

Topic	Issues to be investigated
Green advertisements	<ul style="list-style-type: none">– What are green advertisements?– What are the important characteristics of green advertisements?
Perceived credibility in green advertising	<ul style="list-style-type: none">– Why is perceived credibility of green advertisements relevant?– What aspects of credibility are important?

Table 2.1. (continued)

Topic	Issues to be investigated
The persuasion knowledge model	<ul style="list-style-type: none"> – What is the persuasion knowledge model? – What elements of knowledge are used to determine responses to a persuasion attempt?
Message and brand credibility evaluation	<ul style="list-style-type: none"> – Why is the persuasion knowledge model important in the evaluation of message and brand credibility?
The role of cognitive resources	<ul style="list-style-type: none"> – What factors influence the activation of persuasion knowledge? – How does this factor affect the use of topic knowledge and brand knowledge?

Table 2.2. Topics in part 2 of the literature review

Topic	Issues to be investigated
Schema congruity theory	<ul style="list-style-type: none"> – What is the schema congruity theory? – How are schema-congruent advertisements and schema-incongruent advertisements evaluated by consumers?
Regulatory focus theory	<ul style="list-style-type: none"> – What are two self-regulatory orientations of individuals which can influence consumers' responses to advertisements?
The role of regulatory fit and message framing	<ul style="list-style-type: none"> – What is the regulatory fit effect? – How do advertisers apply the regulatory fit effect to frame advertising messages so that these messages become more effective?
Cultural differences in self-construal, regulatory focus and regulatory fit in advertising	<ul style="list-style-type: none"> – What are cultural differences in self-construal? – How are these differences related to individuals' regulatory orientations and regulatory fit effect in the creation of effective advertisements?
Contextual thoughts in green advertisements	<ul style="list-style-type: none"> – What thoughts do green advertisements induce? – How do these thoughts influence consumers' responses to green advertisements?
Vietnamese culture	<ul style="list-style-type: none"> – What are some cultural values of Vietnamese which can influence the design of effective green advertisements?
Green advertisements in Vietnam	<ul style="list-style-type: none"> – What types of green messages are being used in Vietnam? – What is the difference between green messages in Vietnam and those in Western, developed countries (Australia and New Zealand)?

2.2 Green advertisements

Green advertisements are those that propagate environmentally friendly lifestyles with or without the promotion of eco-friendly features of a particular product or a brand. They are also those that promote corporate social responsibility activities to build corporate reputation (Banerjee et al., 1995). This thesis concentrates on green advertisements that encourage the adoption of environmentally friendly lifestyles by consuming green products of specific brands or companies.

Green product advertisements (hereafter referred to as green advertisements) and conventional product advertisements differ as to their characteristics. For example, green advertisements often consist of more ambiguous or scientific terms than conventional product advertisements. Ambiguous terms such as “environmentally friendly” or scientific terms such as “carbon footprint” might confuse consumers, and this confusion can influence the way consumers think about these advertisements (do Paço & Reis, 2012). Green advertisements often aim to create awareness of environmental issues and stimulate demands for a specific product by emphasizing this product’s eco-friendly features (D’Souza & Taghian, 2005) (e.g. made from 100% natural ingredients, biodegradable, no nasty chemicals, and soft on nature). Advertisements of conventional products, however, often aim to create awareness of the existence of a product and emphasize superior features related to the conventional usage of this product (e.g. powerful cleaning, tough on grease, 3x more grease cleaning powder, etc.). Ultimately, green advertisements can induce unique contextual thoughts such as concerns about the well-being of the environment (Kareklas et al., 2012) and protectiveness (Gildea, 1994), which influence consumers’ self-view perspectives and consumers’ evaluation of advertising messages (e.g. Bullard & Manchanda, 2013; Kareklas et al., 2012).

Due to the growing significance of green advertising, scholars have conducted research on various topics in this context, from the content analyses of green advertisements to characteristics of effective green advertisements. For instance, a content analysis conducted in the U.S. revealed that from 1990 to 2010, the majority of green advertisements were expressed in the responsibility frame, presenting environmental issues in a way that emphasizes the responsibility of the government or individuals for both the causes and solutions to these issues. In addition, most green advertisements had a positive framed valence, such as “better for the environment” and

“for a green planet,” as opposed to negative framed valence, such as “products that don't cost the earth” and “no nasty chemicals”. However, the percentage of positively framed messages decreased over time, from 87.3% in 1990 to 73.7% in 2010 (VanDyke & Tedesco, 2016).

Other studies on the characteristics of effective green advertisements suggest that green advertisements depict the absence of negative outcomes (e.g. emphasizing the use of a particular green product to avoid potential losses; Bullard & Manchanda, 2013). Prior research also shows that green advertisements' characteristics have different impacts on different consumers. For example, advertisements with the inclusion of assertive messages seem to be more effective for consumers who are highly concerned about the environment. But these advertisements are less effective for consumers who are less concerned about the environment (Kronrod et al., 2012). Advertisements that express product-related features in green terms (terms which are associated with the environment, such as “natural plant formula”) are likely to create a higher level of perceived product attractiveness and a stronger purchase intention for consumers whose goal is to minimize the presence of negative outcomes. But these same advertisements are likely to create a lower level of perceived product attractiveness and a weaker purchase intention for those whose goal is to maximize the presence of positive outcomes (Ku et al., 2012). In addition, product-related terms such as “safe” and “gentle” seem to be rated as being more important for consumers whose goal is to minimize the presence of negative outcomes. Whereas product-related terms such as “powerful” and “effective” are rated more important for those whose goal is to maximize the presence of positive outcomes (Ku et al., 2012). A summary of studies on types of appeals in green advertisements were presented in the table below.

Table 2.3. Studies on types of appeals in green advertisements

Authors	Theoretical lens	Key findings
	Promotion-framed vs. prevention-framed appeals	
Bullard and Manchanda (2013)	The regulatory focus theory and the regulatory fit effect	Representing sustainable products in terms of prevention-framed appeals generates regulatory fit experience and enhances advertised products' evaluations, regardless of whether consumers have predominant chronic promotion focus or predominant chronic prevention focus.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Promotion-framed vs. prevention-framed appeals	
Kareklas et al. (2012)	The self-construal theory, the regulatory focus theory, and the regulatory fit effect	Representing sustainable products in terms of prevention-framed appeals for promotion-focused consumers and representing sustainable products in terms of promotion-framed appeals for prevention-focused consumers stimulate regulatory fit experience and enhances advertised products' evaluations.
	Positive vs. negative appeals	
Xue (2015)	The prospect theory	Representing sustainable products in terms of negative appeals for Chinese consumers elicits a more favorable attitude toward the brand and a higher level of trust and purchase intention than representing sustainable products in terms of positive appeals.
Kim and Kim (2014)	The prospect theory	Advertisements of green-hotel which consist of a positively-framed message stimulate a higher level of attitude and attention towards the message, a higher level of visit intention, and a higher level of environmentally friendly actions than those of green-hotel which consist of a negatively-framed message.
Amatulli et al. (2019)	The valenced message framing and the cognitive theory of emotions	Advertisements of eco-friendly products that consist of negatively framed messages encourage more pro-environmental behaviors than those of eco-friendly products that consist of positively framed messages. The impact of message framing on pro-environmental behaviors is mediated by anticipated shame.
Grazzini et al. (2018)	The prospect theory and the construal level theory	When propagating environmentally friendly lifestyles (e.g. recycling), a negatively framed message matched with a concrete message produces a higher level of positive recycling intentions and behaviors than a positively framed message matched with a concrete message.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Gain vs. loss appeals	
Muralidharan and Sheehan (2017)	The primary purpose of a tax and a fee and the negativity bias theory	Advertisements of reusable shopping bags that consist of a loss-framed messages (a tax) are more effective than those reusable bags that consist of a gain-framed message (a fee).
Segev et al. (2015)	The prospect theory	A green advertisement consisting of gain-framed messages stimulates a higher level of favorable attitude towards the advertisement and the brand, and a higher level of purchase intention than that consisting of loss-framed messages (product type: green washing machine).
Davis (1995)	The negativity bias	A green advertisement consisting of a gain-framed message stimulates a more favorable attitude towards the message than that consisting of a loss-framed message.
	Emotional vs. functional appeals Emotion-related appeals	
Matthes et al. (2014)	The consumer involvement theory and the elaboration-likelihood model	Emotional appeals in advertisements for green products affect brand attitude, regardless of consumers' green involvement. Functional appeals in advertisements for green products only influence brand attitudes when involvement is high.
Sarkar et al. (2019)	The utilitarian vs. hedonic benefits	Advertisements for technology-intensive products (e.g. hybrid cars) consisting of functional appeals are more effective than those consisting of emotional appeals. Advertisements for technology non-intensive products (e.g. recyclable shopping bags) consisting of emotional appeals are more effective than those consisting of functional appeals.
Wang et al. (2017)	Different emotional effects of green appeals and the Fredrickson's broaden-and-build model of positive emotions	Green advertisements consisting of admiring appeals stimulate a more favorable attitude towards the advertisements, a higher level of perceived value and purchase intention than those consisting of disdainful appeals.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Emotional vs. functional appeals Emotion-related appeals	
Jiménez and Yang (2008)	The effects of emotional appeals and guilt-induced feelings	While a green appeal which evokes angry-irritated emotions or self-conscious emotions moderates consumers' attitudes towards the advertisement and the brand, a green appeal which evokes ashamed-bad emotions does not.
Lee et al. (2017)	The effects of emotional appeals, the negativity-bias concept, and the broaden-and-build theory	A green advertisement which consists of global issues will stimulate a higher level of viewers' attention, positive attitude toward the green issue, and behavioral intention when it is framed with fear appeals. In contrast, a green advertisement which consists of local issues will stimulate a higher level of viewers' attention, positive attitude toward the green issue, and behavioral intention when it is framed with hope appeals.
Shin et al. (2017)	The effect of emotional appeals and the extended parallel process model	Green advertisements which consist of fear appeal negatively affect attitude toward the advertisements and products.
	Green vs. non-green appeals	
Ku et al. (2012)	The regulatory focus theory and the regulatory fit effect	Prevention-focused consumers perceive a higher level of product attractiveness and purchase intention when being exposed to green appeals related to the product than when being exposed to non-green appeals. Promotion-focused consumers perceive a higher level of product attractiveness and purchase intention when being exposed to non-green appeals than when being exposed to green appeals related to the product.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Green vs. non-green appeals	
Schuhwerk and Lefkoff-Hagius (1995)	The attention to environmental information and involvement	Less involved consumers perceive a higher level of purchase intention and attitude towards the advertisement when being exposed to green appeals than when being exposed to non-green appeals (e.g. financial appeal). When less involved consumers see an advertisement consisting of green appeals, more support arguments are generated than when they see an advertisement consisting of non-green appeals (e.g. financial appeal).
	Benefit-based vs. attribute-based appeals	
Xu and Jeong (2019)	The information-provision model and the construal level theory	Advertisements for green restaurants which consist of benefit-based messages (e.g. the benefit of food-focused green practices) lead to a greater positive attitude towards the restaurants and a greater visiting intention than those of green restaurants which consist of attribute-based messages (e.g. the tangible efforts to show the greenness of the restaurant).
	Self-benefit vs. other benefit appeals Self-focused vs. environment-focused appeals	
Siohong et al. (2016)	The social exchange theory, the self-construal theory, the planned behavior theory, and the prospect theory	Green advertisements consisting of other-benefit appeals elicit a higher purchase intention than those consisting of self-benefit appeals.
Xue (2015)	The theory on individualism and collectivism	Representing sustainable products in terms of collectivistic appeals for Chinese consumers stimulates a more favorable attitude toward the brand and a higher level of trust and purchase intention than representing sustainable products in terms of individualistic appeals.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Self-benefit vs. other benefit appeals Self-focused vs. environment-focused appeals	
Segev et al. (2015)	The point of reference	Loss-framed green advertisements which are self-focused elicit more favorable attitude towards the advertisements than those which are environment-focused.
Cho (2015)	The social judgment theory and the self-determination theory	An advertisement consisting of green claims which emphasize personal impacts on the environment stimulates a higher level of favorable attitude towards the company than that consisting of green claims which emphasize the company' impacts on the environment.
	Present-framed vs. future-framed appeals	
Chang et al. (2015)	The construal level theory and the congruency effect	Advertisements of green products that focus on the changes for the present and that consist of loss-framed messages elicit a more favorable attitude towards the advertisement and the brand. Advertisements of green products that focus on the changes for the future and that consist of gain-framed messages lead to a more favorable attitude towards the advertisement and the brand.
Zhuang et al. (2018)	The construal level theory	When propagating environmentally friendly lifestyles (e.g. saving water), future-framed messages result in more favorable attitudes towards the environmental issue and a stronger behavior intention (e.g. conserving water) than present-framed messages.

Table 2.3. (continued)

Authors	Theoretical lens	Key findings
	Present-framed vs. future-framed appeals	
Davis (1995)	The negativity bias and the short-term vs. long term context	Gain-framed advertisements which consist of messages focusing on the current generation elicit a higher level of believability and favorable attitude towards the messages than those which consist of messages focusing on the future generation. Loss-framed advertisements which consist of messages focusing on the future generation elicit a higher level of favorable attitude towards the messages than those which consist of messages focusing on the current generation.
	Assertive vs. suggestive appeals	
Kronrod et al. (2012)	The effect of issue involvement on compliance and the linguistic expectations	When consumers think that the environmental issue in a green message is important, assertive green messages lead to a higher level of compliance intention than nonassertive (suggestive) green messages.
Katz et al. (2018)	Demarketing tools and the pro-social behavior	When propagating environmentally friendly lifestyles (e.g. saving water), suggestive messages are more effective than assertive messages.
	Abstract vs. concrete appeals	
Chan and Lau (2004)	The effects of claim specificity on consumer responses.	Green advertisements which consist of a substantive environmental message (which is more concrete) lead to a higher level of attitudes towards the advertisement, brand attitude and purchase intention than those which consist of an associative environmental message (which is more abstract).
Chen and Chiu (2016)	The construal level theory	Environmentally conscious consumers perceive a higher level of green product's effectiveness when being exposed to an abstract green message than when being exposed to a concrete green message.

Note: Studies on green advertisements that encourage environmentally friendly lifestyles with or without the promotion of eco-friendly features of a particular product were included in this table.

2.3 Perceived credibility in green advertising

The term “green marketing” was first used in 1975 and since then has drawn much attention of marketers as people have shown more concern about environmental issues (Ahmad & Panni, 2014). Green marketing is associated with companies’ efforts to promote and advertise eco-friendly products such as recyclable papers, biodegradable laundry detergents, and compostable wipes (Okan & Yalman, 2014). However, consumers have shown reluctance to believe green products’ advertisements because of the common perception that companies can use tactics to mislead consumers regarding the environmental practices of their products (Okan & Yalman, 2014; Schmuck et al., 2018a). For instance, companies can claim that their products are eco-friendly without any proof, and might use vague terms to express some environmental practices. If consumers fail to believe green products’ advertisements, they are typically not likely to have positive attitudes toward the advertised products, brands, and companies involved (Tucker et al., 2012b). Thus, how to increase perceived credibility becomes a critical issue in the advertising of eco-friendly products. Previous studies on green advertisement contexts have investigated various factors influencing the perceived credibility of advertisements of eco-friendly products. These factors can be categorized into two groups: factors related to advertisements’ characteristics (e.g. whether green messages are vague or clear; whether green message claims are production-oriented, process-oriented, environmental fact-oriented, or company’s image-oriented, etc.) and factors related to consumers (e.g. whether consumers have knowledge about environmental issues or care about the environment, etc.). For instance, in an attempt to find the impacts of green advertisements’ characteristics on consumer evaluations, Shin and Ki (2018) found that the congruence between product category and green issue increases the perceived credibility of the green message and the company. In a study on the content of green claims, Ganz and Grimes (2018) revealed that the specificity of green messages could influence the perceived credibility of green advertisements. Similarly, other studies on message-oriented factors found that well-supported claims (Chan, 2004) and claims’ strength (Tucker et al., 2012a) can have significant effects on green ad credibility.

In regards to factors related to consumers, previous studies reveal that environmental consciousness (Srivastava, 2018), environmental knowledge (Schmuck et al., 2018a), and green ad involvement (Tucker et al., 2012a) influence green ad

credibility. For example, when being exposed to a green advertisement, consumers who are concerned less about the environment and think that environmental issues are not important to them are likely to perceive a higher level of brand credibility. Yet those who are concerned more about the environment and think that environmental issues are important to them are likely to perceive a lower level of level of brand credibility, because environmentally conscious consumers are more likely to distrust green advertisements (Srivastava, 2018).

One of the common characteristics of the above studies is that these studies only explore which factors could affect green advertisement credibility. But what really happens when consumers encounter a green advertisement? Is there any framework which can explain how consumers responds to green advertisement? Does the context of a green advertisement have any effects on consumer responses (e.g. do green advertisements have any unique characteristics which can influence consumer evaluations?). There is a lack of research on these issues, despite the importance of perceived credibility in a green advertising context. In order to explore insights into these issues, the next part of this section will discuss different types of credibility. Then, the mechanism of how consumers evaluate credibility when they are exposed to green advertisements will be explained in the next section.

Advertising credibility

In the advertising context, the term credibility has been studied under various concepts, such as advertiser (or corporate) credibility (Kim et al., 2017; Lafferty & Goldsmith, 1999; MacKenzie & Lutz, 1989a), source credibility (Cornelis et al., 2015; Musgrove et al., 2016; Wu et al., 2016), media credibility (Bae et al., 2001; Li & Zhang, 2017; Porter et al., 2015), brand credibility (Chang & Thorson, 2004; Pappu et al., 2011; Wang & Scheinbaum, 2018), and advertisement credibility (or message credibility) (Bae et al., 2001; Cornelis et al., 2015; MacKenzie & Lutz, 1989a). The current thesis focuses on the last two types of credibility: brand credibility, which refers to “the believability of the product information contained in a brand” (Erdem & Swait, 2004, p. 192), and message credibility, which is defined as “the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable” (Bae et al., 2001, p. 77). This thesis focuses on brand credibility because in the advertising context, consumers often interact directly with brands. For example,

consumers can interact with the brand Dove by seeing advertisements of Dove on television, on the bus, or in a magazine. Prior research reveals that brand credibility consists of two elements: trustworthiness and expertise (Erdem & Swait, 2004; Sweeney & Swait, 2008). Trustworthiness implies the willingness of the brand to deliver what it has promised without any deception, while expertise involves the capability of delivering it (Baek et al., 2010). Brand credibility is studied in the advertising literature because it has significant effects on consumers' attitudes and behavioral intentions (Chang & Thorson, 2004; Wang & Scheinbaum, 2018). For instance, a study on information processing models in web advertising showed that if consumers perceive the brand to be highly credible, they are more likely to have positive attitudes toward the brands and as a result, they tend to purchase the advertised products (Chang & Thorson, 2004).

This thesis also explores message credibility because this concept has been considered as a major factor in creating effective and persuasive advertisements (Bae et al., 2001; Lutz et al., 1983; MacKenzie & Lutz, 1989a). Message credibility is also key to promoting the consumption of eco-friendly products (Atkinson & Rosenthal, 2014; ShabbirHusain & Varshney, 2018). The content of advertising messages consists of important information about products or services and this information is what brands want to deliver to customers and what brands want consumers to remember. Recently, scholars have paid more attention to investigations of advertising message credibility and they have explored this concept under different names, such as advertisement claim credibility, message credibility, and advertisement credibility (e.g. Esmaeilpour & Aram, 2016; Ganz & Grimes, 2018; Rajaobelina et al., 2018; Sabri & Michel, 2014). These concepts have the same meaning: the believability and the trustworthiness of the message itself (Bae et al., 2001; MacKenzie & Lutz, 1989b). Previous research has shown that consumers tend to have more favorable attitudes toward the advertisements and the advertised brands if they perceive that the advertising messages are credible (Chang, 2011; Miller, 2015; Sarofim & Cabano, 2018).

Although the perceived credibility of brands and messages are the main factors affecting attitudes towards green advertisements and green behaviors (Carrete et al., 2012), there is a lack of research on how consumers evaluate credibility when they are exposed to green advertisements. The next parts of this thesis provide a theoretical background to form a framework to explain this issue.

2.4 The persuasion knowledge model

In an effort to contribute to the understanding of how consumers interpret and cope with marketers' persuasion attempts, Friestad and Wright (1994) introduced the persuasion knowledge model. This model has been applied to research in various advertising contexts, from advergames (Evans & Hoy, 2016; Panic et al., 2013; Waiguny et al., 2014; Waiguny et al., 2012), TV advertisements (e.g. Verhellen et al., 2014), and product placement (e.g. Cowley & Barron, 2008), to keyword search advertisements (e.g. Chan Yun, 2009). The persuasion knowledge model posits that when interacting with persuasion attempts (e.g. advertisements, sales presentations), consumers recall three types of interactive structures: topic knowledge, agent knowledge, and persuasion knowledge. These types of knowledge help people successfully select optimal responses in order to achieve their overriding goals (Friestad & Wright, 1994).

Topic knowledge is consumers' understanding of the topic or content of the persuasion message. This knowledge can be gained from different sources such as previous exposure to an issue or friends' reviews of a product (Friestad & Wright, 1994). For example, some viewers of a TV advertisement about biodegradable detergent may have an understanding of what "biodegradable" is and how using biodegradable products helps protect the environment because they have purchased these types of products before. Thus, they would have higher, or more accessible, topic knowledge about the detergent when encountering an advertisement or sales attempt.

Agent knowledge is consumers' understanding of the characteristics, competencies, or goals of those who are responsible for advertising campaigns (Friestad & Wright, 1994). For example, consumers may have previous knowledge about the size, product ranges, and the reputation of a specific company, a brand, or previous knowledge about the age, ethnicity, and level of honesty of a salesperson.

According to Friestad and Wright (1994), both topic knowledge and agent knowledge play a significant role in determining consumers' coping behavior. In line with this, studies from streams of literature other than the persuasion knowledge model has indicated some ways these types of knowledge could influence consumers' coping behavior, such as through product expertise (Chuang et al., 2009; Te'eni-harari, 2014),

through brand familiarity (Chuang et al., 2009; Delgado-Ballester et al., 2012), and through corporate reputation (Boateng & Okoe, 2015).

Persuasion knowledge is more complex, and is understood as composing a network of interconnected beliefs, including beliefs about psychological mediators, beliefs about marketers' tactics and their appropriateness as well as effectiveness, beliefs about consumers' coping tactics, beliefs about marketers' goals, and consumer strategies to respond to marketers' goals (Friestad & Wright, 1994). Beliefs about psychological mediators are conceptions about what psychological states agents might try to induce to influence consumer responses (e.g. remembering, wanting, connection, happiness, anxiety). People differ as to what common psychological activities are because of the differences in consumers' levels of expertise in persuasion or in their cultural folk knowledge (Friestad & Wright, 1995). For example, researchers in the field of advertising (vs. lay people) are trained to think about various ways to influence consumers, and thus, they have significant understanding of what common internal states could affect consumer responses such as feeling emotion and connection (Friestad & Wright, 1995). Individuals in a group of people who are carefully taught to share their wealth with others would be more likely to think about the sense of equality as a common factor which affects their behavior than those in a group of people who have never been taught about sharing. From the researcher perspective, the term "psychological mediators" is used to describe the psychological activities which influence consumer' responses. However, in lay people's minds, these psychological activities might be simply perceived as the "causes" which result in a particular response instead of as the "mediators". This thesis uses the term "causes" to reflect the terminology "mediators" used in the persuasion knowledge model.

Beliefs about marketers' tactics encompass conceptions about the possible causality between observable features of persuasion attempts and psychological causes (Friestad & Wright, 1994). If an individual believes that trust is a psychological cause, for example, then the inclusion of experts' opinion about a product in an advertisement might be seen as a persuasion tactic only when the consumer could explain the causal relationship between the presence of experts' opinion and their perceived trust. In this way, a consumer might conclude that an advertisement is attempting to create trust for a brand when the advertisement features an expert. They could then identify that creating trust is a marketing goal. And, use of an expert to create trust is a tactic. They may think

that when they see an expert in an ad, the advertisement makers are encouraging them to trust the product featured.

However, in situations such as when consumers have limited cognitive resources, consumers may not always recognize tactics by thinking about the psychological causes and their relations with observable features of persuasion attempts. Instead, they may use different cues to recognize the tactics. Over time, people develop heuristics for identifying marketers' tactics from particular features of persuasion attempts (Friestad & Wright, 1994). For instance, consumers might develop heuristics such as "the inclusion of experts in ads is a persuasion tactic that is designed to make consumers trust the contents of ads" and then use these heuristics to immediately recognize various tactics of advertisers without further thought of the induced causes.

Beliefs about consumers' coping tactics include knowledge of how consumers control their response to tactics when they are exposed to persuasion attempts (e.g. ignoring the persuasion tactics, discounting arguments associated with the tactics, or focusing on analyzing the nature of the tactics; Friestad & Wright, 1994). Beliefs about the effectiveness of persuasion tactics involve conceptions about how strongly the induced psychological effects influence consumer responses. Beliefs about the appropriateness of persuasion tactics, however, involve acceptance of the tactics being used, such as considering whether those tactics are fair, normatively acceptable, manipulated, and/or respectful (Friestad & Wright, 1994).

Although beliefs about appropriateness and effectiveness of a persuasion attempt are conceptually distinct (Friestad & Wright, 1994), consumers may not evaluate tactic effectiveness and appropriateness separately. Appropriateness is a necessary condition for tactics to be perceived as effective tactics. If consumers think a tactic is inappropriate (unfair, normatively unacceptable, or manipulated), they could immediately think this tactic is ineffective because perceived inappropriateness can induce unfavorable thoughts towards the tactics. Such unfavorable thoughts can disrupt the evocation of psychological causes to a specific response. For example, advertisements with the inclusion of experts' opinions about a product can evoke a sense of trust. These advertisements may thus influence consumers who believe that trust is a psychological cause to positive attitudes to form a positive attitude towards the advertised products. However, if these consumers discover that these experts were paid

to advocate this product, they might think the messages in this advertisement are manipulated (therefore inappropriate) and as a consequence, they will not evoke the sense of trust and might not think the tactic the advertiser uses to promote this product is effective. Therefore, effective tactics can be considered as tactics being used appropriately. Without being perceived to be appropriate, tactics are less likely to evoke the psychological causes key to persuasion knowledge, and are less likely to be perceived as being effective. In this thesis, an effective tactic is a tactic which is perceived to be both appropriate and effective.

The evaluation of persuasion competence (effectiveness and appropriateness) of persuasion attempts could further influence consumers' impressions of agents (Friestad & Wright, 1994) and responses to persuasion attempts (Campbell & Kirmani, 2012). For instance, while assessing how effective arguments in an advertisement are, consumers may infer whether the advertiser is thorough or careless, trustworthy or deceptive. They may also respond negatively to silly or unsuitable features of advertised arguments.

In regard to beliefs about marketers' goals and consumer strategies to respond to marketers' goals, consumers develop an understanding of possible goals of agents (e.g. creating/maintaining a relationship with consumers, influencing consumers' conception about the agents) and their own coping goals (e.g. creating/maintaining a relationship with agents, enhancing knowledge of advertising tactics and agents), and then choose optimal strategies to effectively achieve their overriding goals (Friestad & Wright, 1994).

The use of topic knowledge, agent knowledge, and persuasion knowledge depends on various factors such as consumers' expertise (Friestad & Wright, 1994). For instance, when encountering an advertisement about green vehicles which help reduce carbon footprint, consumers who are experts in this field would recall topic knowledge and/or agent knowledge to evaluate the advertisement, whereas those who are unfamiliar with this topic and agent would need help from persuasion knowledge to further evaluate the effectiveness of the advertisement.

Since the introduction of the persuasion knowledge model, although substantial research has applied this model to investigate consumer perceptions, attitudes, and behaviors in various contexts, little research explores how the three types of knowledge

(persuasion knowledge, topic knowledge, and agent knowledge) in this model work as a whole. In addition, research which has contributed to the development of the persuasion knowledge model is mostly related to issues associated with the use of persuasion knowledge (e.g. antecedents and consequences of persuasion knowledge activation), as opposed to topic knowledge and agent knowledge. For example, there is much research examining significant antecedents of the activation of persuasion knowledge, such as accessibility of persuasion motives (Brown & Krishna, 2004; Campbell & Kirmani, 2000), the use of rhetorical questions (Ahluwalia & Burnkrant, 2004), cognitive resources (Campbell & Kirmani, 2000), the message representation (Jain & Posavac, 2004; Pizzutti et al., 2016), negative comparisons (Jain & Posavac, 2004), and advertising schema instantiation (Evans & Park, 2015). In terms of consequences of persuasion knowledge activation, most research has found that the activation of persuasion knowledge could lead to negative outcomes such as lower attitude toward an advertisement (Rose et al., 2012; Zhou et al., 2015), negative attitude toward brands (Ahluwalia & Burnkrant, 2004; van Reijmersdal et al., 2015; Waiguny et al., 2012), unfavorable evaluations of advertisers (Morales, 2005; Xie & Kronrod, 2012), and distrusting beliefs about the claim (Bambauer-Sachse & Mangold, 2013; Boerman et al., 2017).

2.5 Message and brand credibility evaluation

The persuasion knowledge model can play a significant role in explaining how consumers evaluate message credibility and brand credibility of green advertisements. This section presents literature on the role of persuasion knowledge and topic knowledge in green message credibility judgement and the role of brand knowledge in green brand credibility judgement.

In the advertising context, most studies applying persuasion knowledge associate the use of persuasion knowledge with a defense mechanism which helps consumers guard against persuasion attempts once consumers detect persuasion tactics. Negative terms such as deception, doubt, suspicion, and manipulation are often used when discussing the subsequent thoughts of consumers when they activate persuasion knowledge (e.g. Bambauer-Sachse & Heinzle, 2018; Campbell & Evans, 2018; Hwang & Zhang, 2018).

As a body, these studies find that the activation of persuasion knowledge leads to negative responses such as an unfavorable attitude toward advertisers and advertised brands (e.g. An & Stern, 2011; Boyer et al., 2015; Chan Yun, 2009; Panic et al., 2013; Rose et al., 2012; van Reijmersdal et al., 2015; Waiguny et al., 2012; Zhou et al., 2015), a lower level of perceived advertisement credibility (Moore & Rodgers, 2005), a negative word-of-mouth intention (Boerman et al., 2017), and a lower level of purchase intention (Hwang & Zhang, 2018). These studies approach persuasion knowledge from the perspective that consumers' primary goal is to resist persuasion tactics (if detected) and therefore their coping strategy is to seek to discount persuasion attempts.

However, consumers may not always respond negatively once their persuasion knowledge is activated (Dens et al., 2018; Isaac & Grayson, 2017). There are several reasons which help explain this claim. First, the persuasion knowledge model suggests that consumers have various goals when they process information in an advertisement (e.g. refining their relationship with advertisers, enriching knowledge of advertising tactics and advertisers, managing self-image, etc.) and the overriding goal of consumers is to control and manage optimal outcomes, not only to resist marketers' persuasion (Friestad & Wright, 1994; Isaac & Grayson, 2017). Second, because most consumers already hold the general knowledge that advertisers' main goal is to create influential advertisements (Friestad & Wright, 1994; Ham et al., 2015), once consumers activate persuasion knowledge and recognize that the motive of a specific advertisement is to persuade them to buy a particular product, it is hard to say that they would automatically resist persuasion tactics and form negative responses to the advertisement just because they know that they are being persuaded. Third, consumers have different coping strategies, such as focusing on analyzing the nature of the tactics or the content of the advertising message (Friestad & Wright, 1994). Literature on information processing has shown that while processing information, one of consumers' primary motives is to validate the information provided (Petty & Cacioppo, 1986). What if the information in the advertisement perfectly fits with consumers' knowledge and beliefs? For example, when a consumer who cares about marine pollution sees an advertisement promoting the use of a biodegradable detergent brand with a message "Caring for your sea," would this consumer dislike this advertisement because he/she knows that it is trying to persuade him/her to buy an eco-friendly product (which is good for the sea) by using images of the sea and adding the message which mentions the sea? In this case, it is

doubtful that he/she would form negative evaluations or unfavorable responses to the persuasion attempts. Thus, it is possible that the use of persuasion knowledge does not always create negative responses.

More importantly, the perception of the methods advertisers use to affect consumers carries meaning for consumers responses such as attitudes towards the advertising messages and inferences of advertisers' traits (Friestad & Wright, 1994). In this way, it may not be so meaningful whether consumers perceive that the actions of advertisers are persuasion intents but rather whether those persuasion intents are effective. For instance, it is possible that consumers who are highly concerned about chemicals show positive attitudes toward a thoughtful advertisement which respects what consumers value (e.g. associating the advertised chemical-free, biodegradable dishwashing liquids with beautiful gardens), even though they also understand that advertisers are trying to influence their attitudes.

As mentioned earlier, the majority of studies on persuasion knowledge associate the use of persuasion knowledge with negative outcomes, and one of these outcomes is a low level of perceived credibility of advertising claims (Koch & Zerback, 2013; Moore & Rodgers, 2005; Tutaj & van Reijmersdal, 2012; Wojdyski & Evans, 2016; Xu & Wyer Jr, 2010). For example, Tutaj and van Reijmersdal (2012) argue that when consumers use more persuasion knowledge, they understand more about the selling intention and therefore, they are more likely to doubt or be suspicious about the message delivered in the advertisement than those who use less persuasion knowledge. This suspicion leads to a lower level of advertisement credibility and negative advertising value. Koch and Zerback (2013) find that while using their knowledge to identify persuasion intention, consumers realize their freedom is threatened as they acknowledge that they are being influenced by tactics used by the advertiser. Consequently, this acknowledgement triggers reactions which can decrease perceived message credibility.

However, according to Friestad and Wright, while using persuasion knowledge to examine an advertisement, if the tactic used in an advertisement is perceived as being effective by consumers, consumers are likely to believe what is presented and delivered in this advertisement (Friestad & Wright, 1994). This is because when being exposed to an effective advertisement, consumers whose persuasion knowledge is activated think

and analyze the advertisement more carefully. Thus, they are likely to understand the meaningful message in the advertisement more thoroughly. For instance, a certain group of consumers may have beliefs such as “making people feel responsible is the most effective way to promote environmentally friendly products to adults” and “using cute characters to evoke positive feelings is the most effective way to promote eco-friendly products to teenagers.” When these consumers activate persuasion knowledge to evaluate an advertisement for teenagers in which a cartoon bear is dancing and inviting a teenager to buy biodegradable shampoos, they analyze the message carefully. If they think that the tactic being used is effective (showing respect for the things teenager value by using the character to induce positive feelings of teenagers), they may put their trust in the message this advertisement is trying to deliver. In contrast, when these consumers encounter an advertisement for teenagers in which there are images of dead marine animals and the claim “stop using shampoos with toxic chemicals, stop torturing our marine lives”, they might question the quality of the message after analyzing the message carefully, because employing a tactic which uses tragic images to induce the sense of responsibility of teenagers seems to be ineffective. As a result, the ineffective tactic may make them perceive this advertisement as being less convincing, less trustworthy and less believable.

The role of perceived tactic effectiveness in the evaluation of message credibility becomes more important in the context of green advertising. When being exposed to an advertisement of an eco-friendly product, if consumers use more persuasion knowledge to process the information, it is highly possible that they not only think about the sales motive of the advertisement, but also think about the social motive of it. This is because the message about the green product will make consumers think about the environment and benefits of the product to the environment. When consumers think about the positive effects on the environment the advertisement wants to deliver, it is more likely that their evaluation of the advertisement will be influenced in a positive way (Becker-Olsen et al., 2006). Thus, if consumers believe that the way an advertisement persuades them to buy eco-friendly products and consequently, to make the environment become better, is effective, they may trust the advertisement even more.

In summary, advertisements with different levels of perceived tactic effectiveness are expected to lead to different levels of perceived credibility when consumers use persuasion knowledge to process information. Consumers who are exposed to an

effective advertisement and use persuasion knowledge to process the information are more likely to perceive that advertisement as being credible because they appreciate and believe the meaningful message delivered in the advertisement. In contrast, those who are exposed to a less effective advertisement and use persuasion knowledge to process the information are more likely to perceive that advertisement as being less credible because the advertisement makes no sense to consumers.

In this thesis, one of the main focuses is to investigate how advertisers should use different green messages with different wording to create a credible advertisement. Because the manipulation of message content is a common tactic which advertisers often use to influence consumer responses, in the subsequent section, this study uses the term “message effectiveness” to reflect the terminology “tactic effectiveness” used in the persuasion knowledge model.

In addition to the use of persuasion knowledge, consumers can use knowledge about the agent and knowledge about the topic to evaluate the credibility of advertisers and the advertising messages. Agent knowledge is consumers’ understanding of the characteristics, competencies, or goals of a company or a brand (Friestad & Wright, 1994). Because it is not always easy for consumers to identify the company which possesses the product in a specific advertisement, this study investigates consumers’ knowledge about the advertised brand and uses the term “brand knowledge” to reflect the terminology “agent knowledge” in the persuasion knowledge model.

Previous understanding of the brand (e.g. familiarity, product ranges, etc.) can serve as cues for consumers to judge the credibility of brands, especially in the context of green advertising. Indeed, previous research shows that consumers have a more favorable evaluation of brands they have already had knowledge of, as opposed to brands they do not know much about (Laroche et al., 1996; Pae et al., 2002). This favorable evaluation even increases if brands are associated with good causes (Becker-Olsen et al., 2006). For instance, previous research has shown that green brands are able to convince consumers of brands’ competency and increase the level of trust (Chen, 2010). Green brands evoke these positive evaluations because while thinking about green brands, consumers associate the act of advertising and selling eco-friendly products not only with profit-related motives, but also with socially related motives. A company is believed to possess higher expertise if it is able to take both self-interest and

public interest into consideration (Becker-Olsen et al., 2006). When consumers think that a brand has high expertise and competency, it is likely that their perception of brand credibility will increase (Erdem & Swait, 2004). Thus, preexisting knowledge of a brand is crucial for credibility evaluations, especially when that brand serves socially related motives, such as selling eco-friendly products to protect the environment or to make the environment become better. When being exposed to a green advertisement, if consumers have more knowledge about that green brand, it is possible that they will perceive a higher level of brand credibility than those who have less knowledge about that brand.

Topic knowledge, defined as consumers' understanding of the topic or the content of the persuasion message (Friestad & Wright, 1994), can play a significant role in the evaluation of message credibility because an understanding of a specific topic can help consumers judge the accuracy and logic of evidence presented in advertisements. Consumers with lower knowledge on a specific issue are more likely to feel uncertain when making judgements than those with higher knowledge (Alba & Hutchinson, 2000). Therefore, when being exposed to the same advertisement, it is possible that those with lower knowledge express a lower evaluation of message credibility than those with higher knowledge do. For particular topics such as sustainability, the role of topic knowledge in evaluating advertisement credibility might be significant because the frequent presence of scientific terms or vague terms in advertisements of eco-friendly products could confuse consumers (do Paço & Reis, 2012). For example, in an advertisement of an Australian company, the term "footprint" is used (see Figure 2.1 below). Not everybody understands the meaning of carbon footprint and how increasing carbon footprint could affect the environment. Only those who have knowledge about this topic are able to get the idea of how using eco-friendly products could help lower the level of carbon dioxide each of us produces (in other words, help reduce our carbon footprint) and help the earth become greener. Those who do not know the term "carbon footprint" may not understand what message this advertisement wants to deliver and may question the rationale of the message.

Other examples of potentially confusing terms in advertisements of an eco-friendly product are "environmentally friendly," "ecologically conscientious," and "environmentally responsible." These terms could confuse consumers because if consumers do not have much knowledge about which ingredients of a product is really

good for the environment and which ingredients could harm the environment, they may not be able to understand why a specific product is considered as being “environmentally friendly” while others are not. For example, a Vietnamese eco-friendly brand claims that their detergents are environmentally friendly with a description showing that their laundry detergent range is sulphate free. What the relationship between sulphate and being “environmentally friendly” is might be a big question for those who do not know much about sustainable products. Such consumers might not even understand what “environmentally friendly” means in this case and question the believability of this advertisement. In contrast, those with much knowledge about sustainable products and the effects of these products on the environment may be able to get the message this brand wants to deliver, understand why the brand says so, and therefore, think that this message is believable.



Figure 2.1. An advertisement for the brand Aware (Australia)

Source: <https://awareenvironmental.com.au/>

In summary, according to the persuasion knowledge model of Friestad and Wright (1994), consumers use three types of knowledge to evaluate an advertisement: persuasion knowledge, topic knowledge, and agent knowledge (or brand knowledge). Previous research applying this model has shown that the use of persuasion knowledge could decrease the perceived credibility of an advertisement. In the previous sections, this thesis presented literature and arguments to reveal that while using persuasion

knowledge to evaluate an advertisement, consumers also take into consideration the effectiveness of the message that advertisement wants to deliver. Message effectiveness could moderate the relationship between the use of persuasion knowledge and message credibility. When using persuasion knowledge to analyze and interpret a message carefully, if consumers think that the message is effective, it is possible that consumers perceive a high level of message credibility. In contrast, if consumers believe that the message is ineffective, it is likely that they perceive a lower level of message credibility. This is especially important in the context of green advertising because consumers also consider the social motive of green advertisements.

In addition to persuasion knowledge, brand knowledge and topic knowledge also play a significant role in determining the credibility of green advertisements. Previous understanding of green brands may serve as cues for consumers to judge the credibility of brands, and green brands often evoke more positive evaluations from consumers. Thus, when being exposed to a green advertisement, if consumers have more knowledge about that green brand, it is possible that they will perceive a higher level of brand credibility than those who have less knowledge about that brand. Besides, those who have much knowledge of sustainable products are more likely to have the capacity to judge the accuracy and logic of the evidence presented in the advertisements and thus, are more likely to perceive a higher level of message credibility, as opposed to those who have little or no knowledge of sustainable products.

Together, persuasion knowledge, brand knowledge, and topic knowledge determine how the credibility of brands and messages in green advertisements are perceived. But do consumers always use these three types of knowledge to evaluate green advertisements? Is it possible that in some cases consumers use persuasion knowledge more and in other cases, consumers rely more on topic knowledge and brand knowledge to judge the credibility of green advertisements? The next part of this thesis will explore an important factor which influences the use of three types of knowledge in the persuasion knowledge model.

2.6 The role of cognitive resources

Persuasion knowledge is considered a “necessary resource in virtually all interactions with marketers,” and this resource is anticipated to hover in readiness to help consumers perform simple tasks such as judging what they are observing as well as

complex tasks such as deciding how they respond to an advertisement (Friestad & Wright, 1994, p. 3). Nevertheless, there are alternative propositions in which the activation of persuasion knowledge needs more intensive processing (Evans & Park, 2015), because the recall of the existing set of interactive beliefs implies working memory capacity as a precondition (Hossain & Saini, 2014). According to the elaboration likelihood model, the intensity of people's information processing differs as to the availability of cognitive resources (Petty & Cacioppo, 1986). When cognitive resources are unconstrained, people use extensive elaboration to analyze the information they have received. However, when people do not have the ability to process — in situations such as when people are distracted or when they have insufficient knowledge of the topic — they tend to rely on cognitive shortcuts to assess the information. Cognitive shortcuts in persuasion include relying on and trusting attractive endorsers or well-known sources (Petty & Cacioppo, 1986; Zhu et al., 2014).

Prior research in advertising and sales contexts supports the proposition that sufficient cognitive resources are a prerequisite for the recall of persuasion knowledge. For instance, in a study on the impact of cognitive capacity on salespeople's perceptions, results revealed that cognitively busy consumers (those who were busy thinking about how to behave appropriately and how the salesperson would respond) were less likely to activate persuasion knowledge than less cognitively busy observers who simply observed the interaction between other consumers and the salesperson (Campbell & Kirmani, 2000). However, little research focuses on how cognitively constrained and cognitively unconstrained consumers use persuasion knowledge to evaluate ad-related qualities such as message credibility and brand credibility. In the previous sections, this study proposes that the use of persuasion knowledge and topic knowledge can influence perceived message credibility and the use of brand knowledge can influence brand credibility. How might cognitive resources affect the use of these three types of knowledge and as a consequence, influence message credibility and brand credibility?

When being exposed to an advertisement, it is possible that if consumers' cognitive resources are unconstrained (e.g. when they are not busy or distracted by other tasks and can concentrate on reading or viewing an advertisement), consumers are more likely to demonstrate a higher level of persuasion knowledge, and then analyze and interpret the message more carefully to judge message credibility. Because the use of persuasion knowledge implies that valid knowledge has been used to support

judgements, it is possible that if the message is effective, consumers will show a higher level of credibility than those whose cognitive resources are constrained. Those whose cognitive resources are constrained might be unable to use persuasion knowledge to evaluate the advertisement because they are busy or distracted by other tasks and they cannot concentrate on reading or viewing an advertisement. However, if the message is ineffective, consumers with unconstrained cognitive resources might perceive lower message credibility than those with constrained cognitive resources. This is because cognitively unconstrained consumers use persuasion knowledge to analyze an ineffective message, and as a result, they are more certain about their evaluation than cognitively constrained consumers, who use less persuasion knowledge or do not use persuasion knowledge at all.

Besides, because cognitively unconstrained consumers are able to use extensive elaboration to analyze information in an advertisement, they are more likely to utilize their related knowledge about the topic mentioned in the advertisement to help form the right evaluation. In other words, cognitively unconstrained consumers are more likely to base their message credibility evaluation on their topic knowledge, as opposed to cognitively constrained consumers.

In regards to the judgement of brand credibility, the role of cognitive resources is also crucial. When cognitive resources are constrained, consumers might be unable to read and analyze the advertisement message carefully. They might also be unable to think about other important antecedents of brand credibility such as the socially related motives that the brand is trying to deliver (Wang, 2010), the fit between the social cause and the brand (Becker-Olsen et al., 2006), and the quality of the advertised products (Alam et al., 2012; Delafrooz & Goli, 2015). Thus, in order to give the right evaluation, they have to rely on other sources such as familiar heuristic shortcuts. These heuristic shortcuts can be their previous knowledge about the brand (e.g. whether this brand is familiar, whether consumers have used this brand before, products of this brand, etc.). In other words, it is possible that cognitively constrained consumers are more likely to base their brand credibility evaluation on their brand knowledge, as opposed to cognitively unconstrained consumers.

In summary, when cognitive resources are unconstrained (vs. when cognitive resources are constrained), consumers are expected to use more persuasion knowledge

and topic knowledge to judge the credibility of advertising messages. In addition, they are expected to use less brand knowledge to evaluate brand credibility. When cognitive resources are constrained, consumers are less likely to activate persuasion knowledge, less likely to use topic knowledge to judge message credibility, and they are likely to use more brand knowledge to judge the credibility of the brand.

The table below summaries what has been discussed up to this section.

Table 2.4. A summary of topics discussed in the first part of this thesis

Topic	Summary
Green advertisements	<ul style="list-style-type: none"> – Green advertisements are those that propagate environmentally friendly lifestyles with or without the promotion of eco-friendly features of a particular product or a brand, or those that promote corporate social responsibility activities to build corporate reputation (Banerjee et al., 1995). – Green advertisements often consist of ambiguous or scientific terms which might confuse consumers (do Paço & Reis, 2012). – Green advertisements can induce contextual thoughts which influence consumers' self-view perspectives and consumers' evaluation of advertising messages (e.g. Bullard & Manchanda, 2013; Kareklas et al., 2012).
Perceived credibility in green advertising	<ul style="list-style-type: none"> – Consumers have shown reluctance to believe green product advertisements because of the common perception that companies can use tactics to mislead consumers regarding the environmental practices of their products (Okan & Yalman, 2014; Schmuck et al., 2018a). – This thesis focuses on exploring how consumers evaluate message credibility and brand credibility when being exposed to advertisements of eco-friendly products.
Persuasion knowledge model	<ul style="list-style-type: none"> – The persuasion knowledge model posits that when interacting with persuasion attempts (e.g. advertisements, sales presentations), consumers recall three types of interactive structures: topic knowledge, agent knowledge, and persuasion knowledge. These types of knowledge help people successfully select optimal responses in order to achieve their overriding goals (Friestad & Wright, 1994).

Table 2.3. (continued)

Topic	Summary
Message and brand credibility evaluation	<ul style="list-style-type: none">– When being exposed to an advertisement, consumers use existing knowledge (persuasion knowledge, topic knowledge, brand knowledge) to form evaluations of message credibility and brand credibility.– When consumers activate persuasion knowledge, they think and analyze the advertisement more carefully. At this stage, perceived message effectiveness starts to play a significant role in determining how consumers evaluate the credibility of a green advertisement. Consumers who are exposed to an effective advertisement are more likely to perceive that advertisement as being credible because they appreciate and believe the meaningful message being delivered in the advertisement. In contrast, those who are exposed to a less effective advertisement are more likely to perceive that advertisement as being less credible because the advertisement makes no sense to consumers. <p>At the same time, topic knowledge and brand knowledge also influence perceived message credibility. Consumers who have more topic knowledge might be more likely to perceive a higher level of message credibility, as opposed to those who have little or no knowledge of sustainable products. Besides, if consumers have more knowledge about a green brand, it is possible that they will perceive a higher level of brand credibility than those who have less knowledge about that brand.</p>
The role of cognitive resources	<ul style="list-style-type: none">– Because the use of persuasion knowledge needs more intensive processing (Evans & Park, 2015), the availability of cognitive resources is a prerequisite for the use of persuasion knowledge.– In regards to message credibility judgement, if consumers' cognitive resources are unconstrained, consumers might be more likely to demonstrate a higher level of persuasion knowledge and in this case, if the message is perceived as being effective, consumers might show a higher level of perceived message credibility than those whose cognitive resources are constrained and who do not use persuasion knowledge. However, if the message is ineffective, consumers with unconstrained cognitive resources might perceive a lower message credibility than those with constrained cognitive resources. In addition, cognitively unconstrained consumers are more likely to base their message credibility evaluation on their topic knowledge, as opposed to cognitively constrained consumers.– In regards to brand credibility judgement, cognitively constrained consumers might be more likely to base their brand credibility evaluation on their brand knowledge, as opposed to cognitively unconstrained consumers.

Based on what has been discussed in the previous sections, the following hypotheses are put forth:

H1: Cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to demonstrate a higher level of persuasion knowledge.

H2: The effect of the use of persuasion knowledge on green message credibility is moderated by green message effectiveness.

H2a: When green message effectiveness is high, consumers will perceive a higher level of green message credibility.

H2b: When green message effectiveness is low, consumers will perceive a lower level of green message credibility.

H3: Cognitive resources have a conditional indirect effect on green message credibility through the use of persuasion knowledge, conditioned on green message effectiveness.

H3a: If green message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of green message credibility, as a result of using more persuasion knowledge.

H3b: If green message effectiveness is low, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a lower level of green message credibility, as a result of using more persuasion knowledge.

H4: Consumers who have greater green brand knowledge are more likely to demonstrate a higher perception of green brand credibility.

H5: Cognitively constrained consumers (vs. cognitively unconstrained consumers) are more likely to base their green brand credibility evaluation on their green brand knowledge.

H6: Consumers who have greater green topic knowledge are more likely to demonstrate a higher perception of green message credibility.

H7: Cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to base their green message credibility evaluation on their green topic knowledge.

Figure 2.2 below shows the framework of how consumers use existing knowledge to evaluate the credibility of green advertisements, emphasizing the importance of cognitive resources, which can influence how much knowledge

consumers will use, and the interaction between the use of persuasion knowledge and perceived message effectiveness. This framework is drawn from the literature and illustrated to show the “black box” that leads from the activation of persuasion knowledge to evaluations of message credibility in a persuasion attempt.

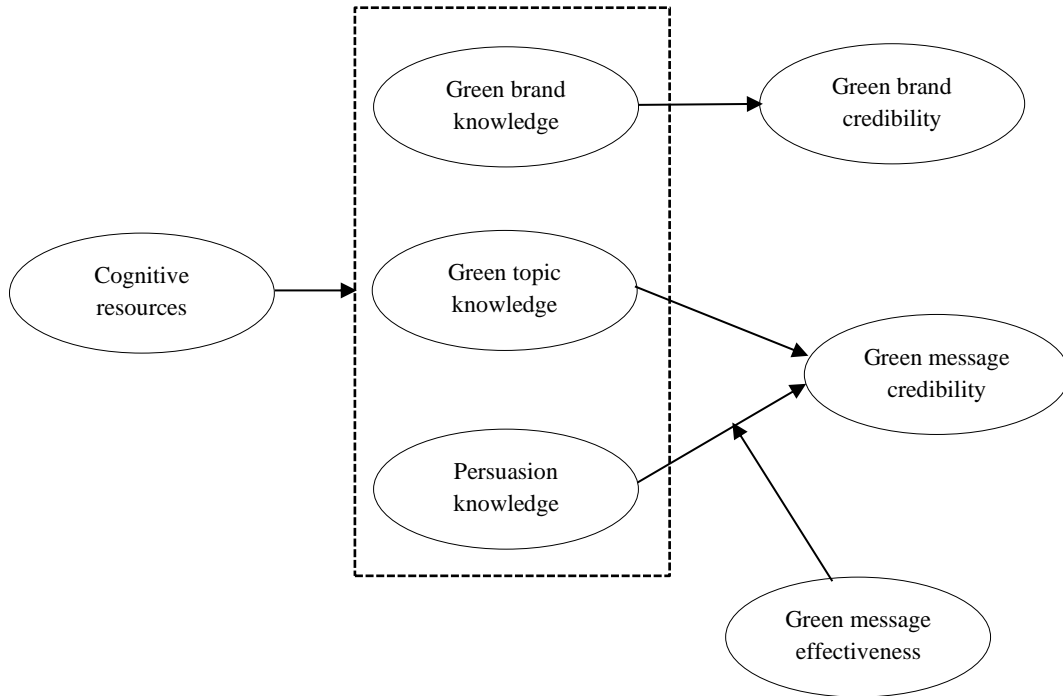


Figure 2.2. The role of preexisting knowledge in credibility evaluation

When applying this framework to design an advertisement for an eco-friendly product, it is difficult for advertisers to control consumers’ cognitive resources, because advertisers cannot control what consumers are doing while they are exposed to an advertisement. Yet when consumers do use persuasion knowledge to evaluate an advertisement, what factors might increase perceived message effectiveness, and thus, increase perceived message credibility? How can advertisers combine these factors with green advertisements’ characteristics to increase message effectiveness?

Previous research has suggested that in order to create more effective messages, advertisers can use framing techniques to match consumers’ regulatory orientation with the message’s representations (Lin & Shen, 2012). However, the characteristic of individual regulatory orientations in different cultures is diverse (Higgins et al., 2008; Kung et al., 2016) and advertisements of green products can induce contextual thoughts which influence consumers’ self-view perspectives (e.g. Bullard & Manchanda, 2013; Kareklas et al., 2012). Collectively, the evidence suggests that cultural differences in regulatory focus and the context of green advertisement could have an impact on the

perceived message effectiveness. This might influence perceived credibility and the way advertisers should frame green advertising messages for people in different cultures. Thus, there is a need for further investigation into these issues. The next parts of this thesis focus on theories explaining how message framing can be used to design advertising messages for consumers in different cultures and how framing can influence the evaluation of message effectiveness for consumers in the context of green advertising.

2.7 Schema congruity theory

People accumulate knowledge as well as experiences on a daily basis and organize these sets of knowledge and behavior patterns into so-called schemas. These schemas help people process and evaluate information more efficiently because they do not have to reassess a similar instance when they encounter familiar experiences (Bartlett & Burt, 1933). Schemas also function to provide expectations. The extent to which information in an advertisement conforms to some predefined knowledge structures can affect the processing of specific situations (Goodman, 1980; Lee & Mason, 1999).

Congruity theory attempts to explore how people's responses can be influenced by the confirmation and disconfirmation of expectations (Mandler, 1982). According to this theory, individuals perceive a specific situation to be schema-congruent if it is consistent with their prior knowledge structure. Because the information they encounter is expected, individuals do not expend as much effort to process the situation and instead, enjoy the familiarity and comfort of an expected situation. In contrast, if the given situation is not consistent with an individual's existing knowledge structure (schema-incongruent), their mind may have to try to reconcile the inconsistency and as a consequence, more effortful processing is required. This could lead to a negative evaluation if the consumer fails to resolve this inconsistency (Mandler, 1982). For example, some people associate eco-friendly products and their advertisements with the color green. If these people see an advertisement of an eco-friendly product in which the product's packaging is green, their expectation is confirmed and they do not need to be concerned about the color of the product. However, if they see an advertisement of an eco-friendly product in which the product's packaging is red or yellow, the incongruity with their schema might make them think more about the advertisement and the product to understand the association between eco-friendly products and the color red or yellow.

If they think that it makes no sense to introduce an eco-friendly product with a red or yellow packaging, they can question whether the product is actually eco-friendly and whether the advertisement is telling the truth.

In the context of advertising, studies have clarified different consequences of schema-congruent advertisements versus schema-incongruent advertisements. Results show that advertisements which are congruent with consumers' beliefs about themselves or about the advertised product or brand attributes tend to be more effective than those which are incongruent. For instance, in a study on the effect of advertising language on younger consumers' attitudes, participants encountered two versions of an advertisement that varied in the use of indecent versus decent language. Results revealed that young participants who perceived an advertisement to be more congruent expressed a more favorable attitude to that advertisement (Ilicic & Blakemore, 2015). In another study, college students were randomly exposed to an advertisement with either congruent or incongruent pictures of the advertisement and the brand and asked to report their attitude towards the brand along with their evaluation of the advertisement's credibility. Results revealed that ad-brand incongruence (versus ad-brand congruence) produced negative attitudes towards the brand and lessened the perceived advertisement credibility (Dahl et al., 2004).

However, the degree of incongruence between schemas and advertisement features might have differential impacts on those evaluating the credibility of advertising messages. Studies of schema-incongruence have revealed more insightful understanding of two levels of incongruence, explaining two possible consequences of schema-incongruent advertisements. Advertisements with unexpected information which provide relevant contributions to the identification of the message are called moderately incongruent advertisements. Those with unexpected and irrelevant information, on the other hand, are extremely incongruent advertisements (Heckler & Childers, 1992). According to Lee and Mason (1999), moderately incongruent advertisements encourage consumers to engage in intensive processing. If the unexpected information in the advertisement is resolved successfully, consumers tend to reward the advertisements in the form of more favorable thoughts because they understand the ingenuity of the advertisement and perceive the advertisement to be innovative and interesting. Extremely incongruent advertisements also challenge consumers' cognitive processing, but since they consist of irrelevant information which

does not contribute to the identification of the message, they tend to induce unfavorable thoughts.

Although congruent advertisements create a sense of ease and comfort in processing, research suggests such advertisements might not produce as high a level of favorable thoughts as moderately incongruent advertisements do because there is no cognitive challenge to be successfully resolved (Lee & Mason, 1999). Thus, depending on whether the unexpected information in the advertising message is relevant or irrelevant, schema-incongruent advertisements could produce either more positive or more negative responses.

In studies on moderately incongruent advertisements, the relevance of message information is commonly used to refer to the link between the advertised product or brand attributes and advertisement features such as slogans and pictures (Chinchanchokchai & Noel, 2015). There is also currently a lack of research on relevant information associated with the link between advertising messages and personal values and beliefs, although these values and beliefs play a significant role in the evaluation of advertising messages. If advertisements present information which contributes to the identification of the product or brand, but this information is not in accordance with consumers' values, it could weaken the degree of perceived relevance. For example, women who value delicacy may perceive an advertisement with a young woman who consumes an energy drink and has superior strength to be less relevant because it is not connected with their traits, although the advertisement's feature (consuming energy drinks leads to an increase in strength for people of any gender) contributes to the product's attributes (uniqueness, strength). In contrast, women who admire strong and independent women may perceive this advertisement to be more relevant because it is more closely connected with their values. Thus, the concept of information relevance in moderately incongruent advertisements should also refer to the meaningful association between advertisement features and consumers' values and beliefs.

In order to better understand the link between consumers' values and beliefs and perceived message effectiveness, as well as the implication of these issues in advertising, the next parts of this thesis focus on regulatory focus theory and regulatory fit effect, and framing techniques in designing effective advertising messages.

2.8 Regulatory focus theory

When consumers self-regulate, they decide what their goals are, how they can achieve them, and choose appropriate strategies to act (Cesario et al., 2008).

Consumers' self-regulation differs by individual and its development depends on different styles of parenting during childhood. According to Higgins and Silberman (1998), some parents consistently focus on encouraging children to behave desirably to achieve positive outcomes, rewarding their children when they reach a goal. Other parents primarily focus on preventing children from creating negative outcomes by teaching children how to avoid potential dangers and punishing them when they behave undesirably. The former parenting style encourages children to think more about the ideal things they would and would not do, whereas the latter parenting style can result in children thinking more about things they ought and ought not to do. The consequences of these parenting styles are the differences in children' desired goals and in their favorable means to attain those goals (Higgins & Silberman, 1998). On the basis of these parenting styles, regulatory focus theory proposes two separate self-regulatory orientations of individuals: prevention and promotion (Higgins, 1996), which influence consumer processing of advertising and marketing messages (Kareklas et al., 2012; Kirmani & Zhu, 2007).

Individuals with stronger promotion focus in their goal pursuits concentrate on accomplishment, advancement and aspiration. They are sensitive to attainment, so they prefer an eager strategy as it can ensure a gain and also ensures against misses. In contrast, those with a stronger prevention focus in their goal pursuits concentrate on protection, responsibility, and security. They are sensitive to maintenance, so they prefer a vigilant strategy as it can ensure they do not lose and ensures against the presence of negatives (Higgins, 1996). Though both orientations exist in most individuals, one orientation could be more accessible in the mind than the other, depending on an individual's personality and the situation (Higgins et al., 2008). One's dominant orientation can be determined using the regulatory focus questionnaire or RFQ (Higgins et al., 2001), which consists of scaled questions to measure the "promotion pride" and "prevention pride" of individuals. Those who have a higher promotion pride score than prevention pride score have a stronger promotion focus in their goal pursuits, and those who have higher prevention pride score have stronger prevention focus in their goal pursuits (Higgins et al., 2001).

A consumer's default, dominant orientation can affect various stages in the decision-making process. For instance, those whose dominant regulatory orientation is prevention-focused are more likely to be persuaded by cognitive cues, while those whose dominant regulatory orientation is promotion-focused are more likely to be convinced by affective ones (Chang & Lin, 2010). Those who have a stronger prevention focus are also less likely to purchase new products, show less satisfaction with positive outcomes, and show more satisfaction with negative outcomes than those who have a stronger promotion focus (Herzenstein et al., 2007; Trudel et al., 2012). In this thesis, the terms "promotion-focused individuals" and "prevention-focused individuals" will be used to describe those who have a stronger promotion focus orientation and those who have a stronger prevention focus orientation, respectively.

2.9 The role of regulatory fit and message framing

2.9.1. Regulatory fit effect

The regulatory fit effect— "the child" of regulatory focus theory— concerns the match between one's regulatory orientation (promotion focused vs. prevention focused) and the strategic manner used to sustain that orientation (Higgins, 2000). This "match" results in a "just-feels-right" experience, which transfers to the object of valuation and boosts the strength of engagement (Aaker & Lee, 2006; Higgins, 2000).

This "just-feels-right" sensation of regulatory fit can be explained using two approaches: process-based and outcome-based approach (Aaker & Lee, 2006). The process-based approach concerns the consistency between individuals' chronic regulatory orientation and their strategies to achieve goals. Individuals have different inclinations for various means to achieve their goals. However, if individuals pursue their goals in a manner that helps sustain their regulatory orientation, they would then feel what they are doing is right (Cesario et al., 2004). For instance, the literature shows that when making judgments, promotion-focused people are more likely to consider affect, whereas prevention-focused people are more likely to rely on arguments. By using the appropriate strategies (i.e., relying on affect or reason to judge the products), people experience a feeling of rightness (Avnet & Higgins, 2006; Pham & Avnet, 2004).

The outcome-based approach concerns the relationship between an outcome and the regulatory goal individuals are especially sensitive to. Promotion-focused

individuals are more responsive to the presence of gains and the absence of non-gains, whereas prevention-focused individuals are more responsive to the absence of non-losses and the presence of losses (Cesario et al., 2008). Therefore, the “just-feels-right” sensation can arise from the act of priming promotion-focused individuals to think about attainment, and encouraging prevention-focused individuals to think about maintenance (Aaker & Lee, 2006). For example, Higgins et al. (2003) induced the “feeling right” experience from regulatory fit by asking half their participants to think about what they would gain by choosing a pen or a mug and the other half of participants to think about what they would lose by not choosing the pen or the mug.

By analyzing the nature of the regulatory fit effect and considering the differences in process-based approach and outcome-based approach, advertisers can choose better advertising messages for different groups of consumers because these differences influence numerous factors, such as advertising message processing (Kirmani & Zhu, 2007) and advertising message evaluation (Cesario et al., 2004). The next section explains a technique called message framing, which advertisers can use to utilize knowledge of the regulatory fit effect to capture the “just-feels-right” experience of different groups of consumers.

2.9.2. Message framing

In the advertising context, the regulatory fit effect can be manipulated by framing the message, such as framing the message in terms of prevention representations for consumers with stronger prevention focus orientation (Aaker & Lee, 2001, 2006; Cesario et al., 2008; Kim, 2006; Lin & Shen, 2012). Representations associated with promotion orientation include abstractness, change, gain, fun and enjoyment, whereas representations associated with prevention focus include concreteness, stability, loss, safety and security (Aaker & Lee, 2001; Lee et al., 2010; Liberman, 1999; Lin & Shen, 2012).

Schema congruity theory offers a compelling way to explain regulatory fit and “just-feels-right” experiences. Consumers with different regulatory orientation have different expectations of outcomes and strategies to sustain these outcomes. For instance, in regard to outcomes, prevention-focused consumers expect non-losses, whereas promotion-focused consumers expect gains (Higgins, 1996). When framing advertising messages with representations associated with consumers’ dominant

regulatory orientation, advertisers intentionally let consumers encounter an expected schema which has already been analyzed and stored in the mind by consumers. Therefore, consumers feel a familiar, easy and comfortable response to the message (a “just-feel-right” sensation). For example, promotion-focused consumers (whose expected goal is ensuring the presence of gains) should feel more comfortable when they encounter an advertising message that indicates consuming a typical eco-friendly toilet paper helps the forest look more beautiful, versus one that indicates the eco-friendly toilet paper helps prevent the deterioration of the forest. The former implies the presence of attainment (a more beautiful forest), the expected goal of a promotion-focused consumer. The latter is an unexpected goal for promotion-focused consumers, but would be a “match” for prevention-focused consumers because it fits with their expected goal, which is ensuring the absence of losses (the prevention of forest deterioration).

When consumers activate persuasion knowledge to evaluate a message, they might think about how strongly the psychological sensation the advertising messages produce could influence their responses (Friestad & Wright, 1994). In order to evaluate the strength of these psychological effects, consumers should start to recall existing knowledge structures (schemas) and judge whether these effects are consistent with their own perspective, through the lens of preferred regulatory orientations. If the framed message creates expected psychological causes that are congruent with consumers’ regulatory orientation (schema congruity), they experience a fit and may think the way this message is presented and the tactics it uses to persuade them are effective, and thus the message is more credible. When promotion-focused consumers encounter the advertisement with the message that consuming a typical eco-friendly toilet paper helps the forest look more beautiful, they may think this advertisement is more effective and consequently, more credible because it induces the feeling of attainment (which is perceived to be more expected and compatible with promotion-focused consumers). Alternatively, prevention-focused consumers who view an advertisement with the message that a typical eco-friendly toilet paper helps prevent the deterioration of the forest may find this advertisement more effective and credible because it induces a feeling of security (which is perceived to be more expected and compatible with prevention-focused consumers). On the other hand, when a message creates unexpected psychological effects which are not congruent with consumers’

dominant regulatory orientations, they do not experience a fit and may think the way this message is presented to persuade them is not effective, and thus the message is less credible. For instance, framing a message with achievement and enjoyment representations for prevention-focused recipients (such as consuming a typical eco-friendly toilet paper helps the forest look more beautiful) might be viewed as an ineffective persuasion tactic. Likewise, framing a message with responsibility and safety representations for promotion-focused recipients can also be viewed as an ineffective tactic (such as consuming a typical eco-friendly toilet paper helps prevent the deterioration of the forest).

However, it appears that considering schema incongruent advertisements to be ineffective might not always be true. In fact, the intensive processing associated with incongruent advertisements, as well as the use of persuasion knowledge, and the existence of both types of regulatory orientation in each individual might raise the possibility that some incongruent advertisements are perceived to be more effective and credible than congruent advertisements. This remains to be investigated in the domain of cross-cultural perceptions of green advertisements.

As mentioned before, studies of schema-incongruence have revealed two levels of incongruence which encourage consumers to engage in intensive processing: moderate incongruence and extreme incongruence (Heckler & Childers, 1992) and studies of regulatory focus have indicated that both promotion-focused and prevention-focused orientations exist in most individuals (Higgins et al., 2008). Given a situation in which consumers with a stronger prevention-focused orientation activate persuasion knowledge and evaluate the effectiveness of an advertisement with promotion-focused representations, it is possible that consumers still perceive the fit experience. This is because by processing information carefully, these consumers might be able to rationalize the inconsistency between the unexpected psychological cause and tactic that the advertisement induced and their regulatory orientation. They might experience a moderate schema-incongruity effect and as a result, they tend to reward the advertisements in the form of more favorable evaluations. Consequently, consumers might think that the advertisement is effective and credible. In addition, since moderate schema-incongruity advertisements can create more favorable thoughts than schema-congruity advertisements (Lee & Mason, 1999), it is also possible that consumers perceive a higher level of effectiveness and credibility when being exposed to moderate

schema-incongruity advertisements than they do when being exposed to schema-congruity advertisements.

Similarly, when promotion-focused consumers activate persuasion knowledge and evaluate the effectiveness of an advertisement with prevention-focused representations, it is possible that these consumers still perceive that this advertisement is effective, and the level of perceived effectiveness in this case could be higher than the level of effectiveness consumers perceive when they are exposed to an advertisement with promotion-focused representations.

In brief, regulatory fit theory and schema congruity theory suggest that if an advertisement is framed with representations associated with consumers' dominant regulatory orientation, consumers might think this advertisement is effective because of the schema congruity effect. In contrast, if an advertisement is framed with representations which are not associated with consumers' dominant regulatory orientation, consumers might think this advertisement is not effective. However, studies on schema incongruity suggest that if an advertisement is framed with representations which are not associated with consumers' dominant regulatory orientation, it is possible that consumers might think this advertisement is more effective because of the moderate incongruity effect.

Since individuals' regulatory orientations can play a significant role in determining the level of perceived message effectiveness and message credibility, these mixed findings show a clear need for more investigation into this issue. Research on regulatory focus has paid much attention to the difference in regulatory focus among various cultures. In particular, research has focused on how individuals' regulatory focus forms in different cultures and the impacts of it on people's cognitions and behaviors across cultures. The next part of this thesis explains the distinctness of regulatory focus in different cultural groups and investigates issues related to its influences on consumer's perception of message fit.

2.10 Cultural differences in self-construal, regulatory focus and regulatory fit in advertising

Culture has long been recognized as a vital factor in advertising research because it can influence the way consumers perceive the persuasiveness and effectiveness of advertising messages, which in turn affects their response to advertising efforts (Cheong

et al., 2010; Chiou, 2002; Darley et al., 2013; de Mooij & Hofstede, 2002; Kalliny et al., 2014). Previous research shows that there are cultural differences in self-construal. In other words, consumers in different cultures differ as to how they interpret the self and the others (Kitayama et al., 2007). Markus and Kitayama (1991) categorized the way in which individuals define themselves in relation to others into two distinct orientations: independent self-construal and interdependent self-construal. Individuals with independent self-construal define the self as autonomous and distinctive from others. Thus, they think and act in a way which promotes their own goals, enhances the superiority of their abilities, and makes them seek to become more unique and differentiated (Singelis, 1994). For instance, when referring to themselves, individuals with salient independent self-construal will tend to first describe their own abilities and attributes (e.g. I am creative, I am smart) rather than their relationships with others (e.g. I am a student of X university). Likewise, when referring to others, they are more likely to think about others' characteristics rather than the setting or the social context (Markus & Kitayama, 1991).

In contrast, individuals with interdependent self-construal tend to define the self as an inseparable part of people in the same group (Markus & Kitayama, 1991). They are more concerned about their connectedness with others, therefore, they tend to act in a way which helps them fulfill their obligations, create harmony within the group, and fit in with others (Parson & Artistic, 2014). They perceive that people and social context are integrated, and consequently, they consider their emotions as well as actions in relation to the setting, and situation, and they view others' behaviors within a broader social context (Markus & Kitayama, 1991). For instance, when referring to themselves, individuals with salient interdependent self-construal will tend to first describe their relationships with others (e.g. I am a student of X university) before referring to their own abilities and attributes (e.g. I am kind, I am funny) (Markus & Kitayama, 1991).

Previous research has shown that members of cultures in which independence is highly regarded (hereafter referred to as independent cultures) are more likely to have independent self-construal (e.g. British, American, Australian, New Zealander), while members of cultures in which interdependence is highly regarded (hereafter referred to as interdependent cultures) are more likely to have interdependent self-construal (e.g. Chinese, Japanese, Vietnamese) (Markus & Kitayama, 1991). This explains why

Chinese people often behave in accordance with the expectations of others, whereas Americans act in accordance with their internal wishes (Markus & Kitayama, 1991).

Because people with independent self-construal mainly focus on the uniqueness of the self, they tend to have the goal of distinguishing themselves from others in a positive manner (Heine et al., 1999), which is more consistent with a promotion-focused orientation. In contrast, those with interdependent self-construal value connection with others, and are aware of and respect others' needs, desires, and goals. Therefore, their primary goal is to avoid mistakes to ensure they can maintain harmony within their groups (Heine et al., 1999), which is more consistent with a prevention-focused orientation. Indeed, cross-cultural research shows evidence indicating that in countries where interdependent self-construal is dominant (e.g. Japan and China), people possess stronger prevention focus orientation than promotion focus orientation. In countries where independent self-construal is dominant, for instance, the United States and Italy, the regulatory focus orientation of promotion is stronger than prevention (Higgins et al., 2008; Kung et al., 2016).

As the strength of promotion focus and prevention focus orientations varies across cultures (Guo & Spina, 2016), when being exposed to the same advertising messages, consumers in different countries may experience regulatory fit differently and thus, evaluate the effectiveness and credibility of the message differently. It is possible that consumers in countries where independent self-construal is dominant (e.g. U.S., Italy) perceive promotion-framed messages to “fit” better and therefore to be more effective and credible, whereas those in countries where interdependent self-construal is dominant (e.g. China, Vietnam) perceive prevention-framed claims to be a better “fit” and therefore to be more effective and credible.

Nevertheless, research on the communication of green appeals has found significant characteristics of green advertisement which could potentially influence the way consumers in different cultures experience the regulatory fit effect discussed above. The next part of this thesis focuses on explaining this influence.

2.11 Contextual thoughts in green advertisements

As mentioned earlier, green advertisements are those that encourage the adoption of environmentally friendly lifestyles by consuming green products of specific brands or companies. Unlike advertisements of non-green products, advertisements of green

products have a distinctive characteristic, which is the ability to induce contextual thoughts (Bullard & Manchanda, 2013; Kareklas et al., 2012). The presence of contextual thoughts can influence the way advertisers design effective and credible green messages. Research on the green context has shown that green advertisements induce “thoughts of a more global nature that extend beyond one’s self and family” (Kareklas et al., 2012, p. 27). For example, when being exposed to an advertisement of conventional detergents, consumers might think about the cleaning strength, the smell of the detergent being advertised, and how these features satisfy consumers’ or their family’s needs. However, when being exposed to an advertisement of an eco-friendly detergent, consumers might not only think about the above features, but also think about the impact of this detergent to the sea water and the land. In other words, consumers viewing the ad can be concerned about the well-being of the environment as well as their own benefits. The social and environmental contextual thoughts of green advertising could potentially influence consumers’ self-view perspectives and the perceived regulatory fit. Indeed, in a study conducted in the U.S., Kareklas et al. (2012) showed evidence that when participants are exposed to environmentally related advertisements, they evoked thoughts about others and societal benefits. For those with an independent self-construal, there would be a contrast of self-view perspective (approach goals) and this contrast could make consumers prefer a vigilant strategy, which is typically more consistent with prevention-focused orientation. On the contrary, the congruence between the self-view of those with an interdependent self-construal and contextually induced thoughts could encourage eagerness and motivate participants to take action, sustaining a promotion-focused orientation. Therefore, if green advertisements are depicted in terms of prevention-framed messages, promotion-focused participants might perceive more “fit”. On the other hand, if green advertisements are depicted in terms of promotion-framed messages, prevention-focused participants could experience equal or more “fit” vs. green advertisements depicted in terms of prevention-framed messages (Kareklas et al., 2012). Without consideration of the contextual thoughts induced by green appeals, advertisers might conclude that consumers with an independent self-construal might prefer promotion-framed advertisements and those with an interdependent self-construal might prefer prevention-framed advertisements.

Besides the thoughts of a global nature, other research has indicated that consumers associate sustainability with prevention representations, such as protectiveness (Gildea, 1994) and safety (Luchs et al., 2010). In line with this research, a study conducted in Canada has shown that the context of advertising sustainable products primes a prevention focus in consumers. As a consequence, this study shows that representing sustainable products in terms of prevention-framed appeals (e.g. messages depicting the absence of negative outcomes) generates regulatory fit experience and enhances advertised products' evaluations, regardless of whether consumers have predominant chronic promotion focus or predominant chronic prevention focus (Bullard & Manchanda, 2013).

This research shows mixed results about the influence of the green advertising context on perceived regulatory fit, which might consequently influence perceived message effectiveness and message credibility. Different recommendations for message framing of green messages emerge from these two opposing perspectives. In one theoretical lens, the effects of contextually induced thoughts of green advertisements outweigh individuals' regulatory orientations. From this perspective, because contextually induced thoughts of green advertisements make prevention focus more accessible regardless of consumers' predominant chronic regulatory orientations (as in Bullard & Manchanda, 2013), advertisers should introduce the same prevention-framed advertisements of green products to consumers of different cultures. The prevention-framed advertisement can thus create regulatory fit and consumers will think these advertisements are more effective and more credible. Yet in the opposing research perspective, this is not the best route to achieving perceptions of green message effectiveness. In this theoretical perspective, there is an interaction between the contextually induced thoughts of green advertisements and individuals' regulatory orientations. From this view, because contextually induced thoughts of green advertisements make the prevention-focused system more accessible for individuals with a predominant promotion focus, and make the promotion-focused system more accessible for individuals with a predominant prevention focus (as in Kareklas et al., 2012), advertisers should frame the advertisements of green products differently to produce a higher level of perceived message effectiveness and message credibility. For instance, advertisers can introduce prevention-framed advertisements to consumers in countries where the independent self-construal and the promotion-focused orientation

are dominant (e.g. U.S., New Zealand) and introduce promotion-framed advertisements to consumers in countries where the interdependent self-construal and the prevention-focused orientation are dominant (e.g. Vietnam, China). This framing strategy is also consistent with suggestions derived from studies on moderately incongruent ads. Yet which theoretical perspective is most apt for green messaging effectiveness remains to be determined.

Table 2.4 below summarizes the literature on how to create effective advertising messages discussed so far. It presents the main concepts explored in the literature, explains how these concepts are relevant to this study, and summarizes the application of each concept to the design of advertisements of eco-friendly products.

Table 2.5. Summary of literature on effective messages in different cultures

Concepts	Relevance to this study	Application for advertisers of eco-friendly products
Schema congruity theory		
If the information consumers encounter is expected, they will enjoy the familiarity and comfort. If consumers encounter unexpected information, more effortful processing is required and this could lead to a negative evaluation (Mandler, 1982).	When a green ad's message is congruent with consumers' regulatory orientation, it might be perceived to be more effective than incongruent messages.	Advertisers should design promotion-framed green ads for consumers with a stronger promotion-focused orientation, and prevention-framed green ads for consumers with a stronger prevention-focused orientation.
Studies on moderately incongruent ads		
If consumers encounter a moderately incongruent advertisement and they can resolve the information in the ad successfully, they will reward the ad (Lee & Mason, 1999).	When a green ad's message is moderately incongruent with consumers' regulatory orientation, it might be perceived as being more effective than those which are congruent.	Advertisers should design promotion-framed green ads for consumers with a stronger prevention-focused orientation and prevention-framed green ads for consumers with a stronger promotion-focused orientation.

Table 2.4. (continued)

Concepts	Relevance to this study	Application for advertisers of eco-friendly products
Regulatory focus theory and regulatory fit theory		
Arguments are consistent with schema congruity theory. When there is a match between one's regulatory orientation and the advertising message, a "just-feels-right" experience appears and results in positive evaluations (Aaker & Lee, 2006; Higgins, 2000).	When a green ad's message is congruent with consumers' regulatory orientation, it might be perceived as being more effective than those which are incongruent.	Advertisers should design promotion-framed green ads for consumers with a stronger promotion-focused orientation, and prevention-framed green ads for consumers with a stronger prevention-focused orientation.
Studies on green advertisements		
Advertisements of eco-friendly products induce contextual thoughts which could influence consumer responses.	<ul style="list-style-type: none"> - Kareklas et al. (2012) reveal that green ads evoke thoughts about others and societal benefits. These thoughts make consumers with an independent self-construal prefer a vigilant strategy (consistent with prevention-focused orientation) and encourage the eagerness of consumers with an interdependent self-construal (consistent with promotion-focused orientation). - Luchs et al., 2010 and Bullard & Manchanda, 2013 reveal that green ads prime a prevention focus in consumers. 	<ul style="list-style-type: none"> - From the results of Kareklas et al. (2012)'s study: advertisers should design promotion-framed green ads for consumers with a stronger prevention-focused orientation, and prevention-framed green ads for consumers with a stronger promotion-focused orientation. - From the results of Luchs et al. (2010)'s and Bullard and Manchanda (2013)'s studies: advertisers should design prevention-framed green ads for consumers regardless of consumers' dominant regulatory orientation.

This literature suggests mixed implications for advertisers to create effective advertisements of eco-friendly products. Which theoretical lens is more appropriate to consider for how advertisers design their green advertisements? This remains to be seen, and the answer is part of the contribution this thesis seeks in testing a model of

understanding what influences consumer perceptions of green advertisement credibility and authenticity. In order to resolve this question, the following hypotheses are proposed:

H8: Consumers from an interdependent culture (vs. those from an independent culture) will perceive that prevention-framed green advertisements are more (less) effective.

H9: Consumers from an interdependent culture (vs. those from an independent culture) will perceive that promotion-framed green advertisements are more (less) effective.

The figure below shows the completed framework to be tested in this thesis. This figure shows how consumers are anticipated to use existing knowledge to judge the credibility of green advertisements and potential factors affecting this judgement.

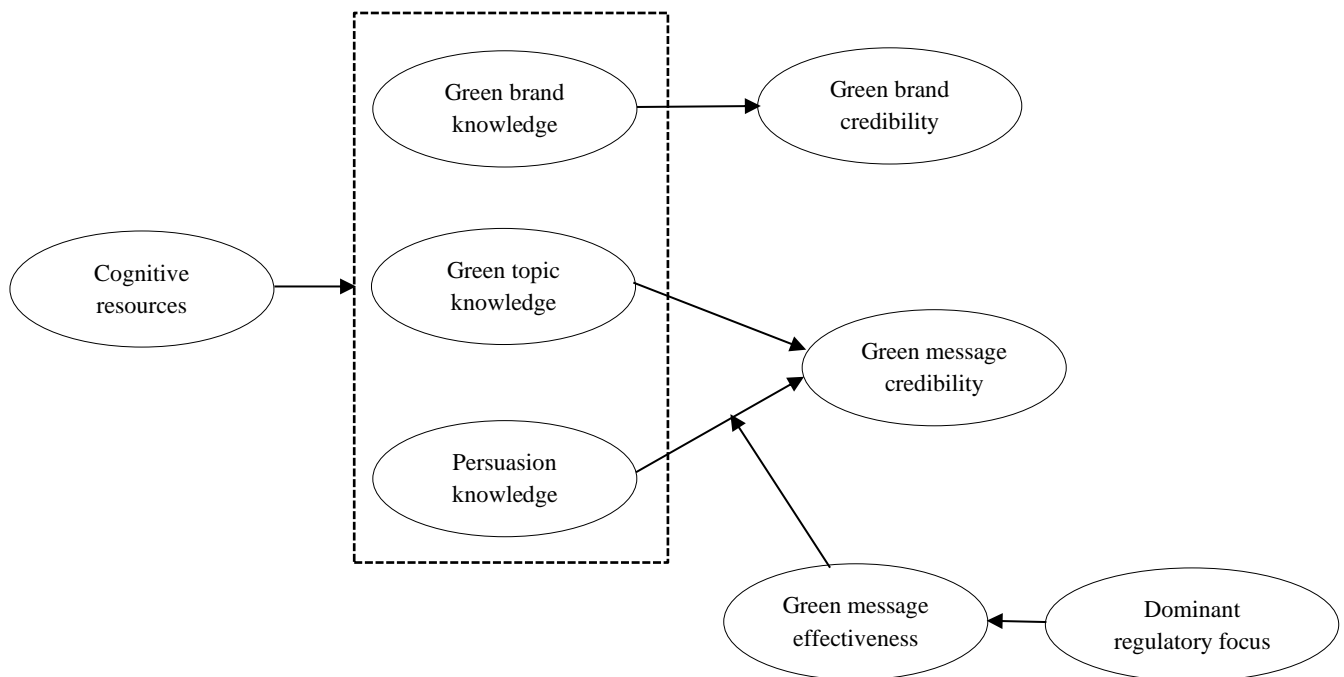


Figure 2.3. The role of preexisting knowledge in credibility evaluation and factors influencing consumer evaluations

In the literature discussed so far, although there has been much research on the characteristics of effective green advertisements and consumers' responses to green advertisements, the majority of these studies have been conducted in Western, developed economies, where independent culture is dominant (e.g. the US). Little is known about how consumers respond to green advertisements in Eastern, emerging economies, where interdependent culture is dominant (e.g. Vietnam), despite the fact that the cultural difference in self-construal is a significant factor in determining

consumer responses to green advertisements. In addition to the influence of cultural differences, other factors such as economics, environmental policy, income level, etc. also play a significant role in how consumers respond to green ads. For example, because of rapid industrial modernization and looser environmental policy, emerging economies such as China, India, Indonesia, and Vietnam are facing serious environmental degradation issues (e.g. water pollution and air pollution) more than developed economies (Geng et al., 2017). These problems directly affect humans' lives and this reality could potentially make people in emerging economies evoke strong feelings about environmental degradation, environmental protection campaigns, and advertisements which promote the consumption of eco-friendly products (Carrete et al., 2012). Income level and living conditions could be other influential factors. Since the income level and living conditions of people in emerging economies tend to be lower than those of people in developed economies, it is possible that people in emerging economies pay more attention to conventional products and their advertisements, which can satisfy their basic needs more clearly than green products and their advertisements.

Because of these differences and their impacts on consumer responses, the adoption of suggestions derived from studies in Western, developed countries where independent culture is dominant to green advertisements in Eastern, developing countries where interdependent culture is dominant may lead to unpredictable results. Thus, it is necessary to explore the characteristics of effective green advertisements in Eastern, developing countries, where interdependent culture is dominant. Investigating these characteristics could help advertisers boost the consumption of eco-friendly products in contexts outside of developed, Western countries, where independent culture is dominant. Therefore, in most of the studies of this thesis, data will be collected from consumers of an Eastern, developing country, where interdependent culture is dominant (Vietnam). In order to understand more about how the interdependent culture of Vietnam could potentially influence the communication of green advertisements and why this study chooses to collect data from the context of Vietnam, the next part of this thesis focuses on discussing some related characteristics of Vietnamese culture. Then, this thesis explores the context and landscape of green advertisements currently used in Vietnam to help readers have a general idea about which green messages advertisements of eco-friendly products in Vietnam are delivering.

2.12 Vietnamese culture

Vietnam is an emerging economy in Southeast Asia with thousands of years of history. The early Vietnamese people developed and shared their customs with many civilizations such as Champa, an Indian influenced state, and China, a powerful neighbor in the north. Vietnam had been ruled by the Chinese government for about a thousand years (from 111 B.C. to A.D. 938), colonized by the French for almost a century (from 1858 to 1945), and controlled by the Americans for 20 years (from 1955 to 1975). Although Vietnam has been ruled by both Eastern countries and Western countries, scholars who examine Vietnamese culture still find that Vietnamese culture is similar to Chinese culture, and some scholars refer to Vietnam as “a Neo-Confucian society” (Nguyen, 2009, p. 44). However, before the invasion of China and other Western cultures, Vietnam had developed a high level of civilization with a cohesive society, which helped the early Vietnamese keep their cultural values from being assimilated (Nguyen, 2009). For instance, although Vietnamese culture was heavily influenced by Chinese culture which mainly focuses on family values, Vietnamese culture considers clan values and community values as more important than family values (Tran, 2003).

Vietnamese culture values relationship, responsibility, and sacrifice (Adian & Adian, 2009). Individuals have strong connections with their families, and their societies, as well as the natural environment, and they are responsible for these entities. In other words, Vietnamese cherish interdependence with other entities. Because individuals are bounded by the social context, social groups expect individuals to conform to the group’s norms and to contribute to the welfare of groups and society. Children are taught that fulfilling their responsibility is more important than pursuing their own desires. They are told to forsake their ego and sacrifice for the good. They are often questioned about their contribution to their family and their society when they grow up (Hunt, 2005). Vietnamese culture also values harmony (Selin, 2014), meaning that people are expected to create and foster harmony with others and with nature. The Vietnamese in particular, maintain harmony with others by communicating in a modest way, showing collaboration, and avoiding conflicts (Hunt, 2005). Because “persons with a strong selfish and competitive orientation are less likely to act ecologically” (Ahmad & Panni, 2014, p. 112), cultural values such as the sacrifice and harmony of the

Vietnamese people may render them more likely to adopt environmentally friendly lifestyles.

According to Cuc (1999), Vietnamese maintain harmony with nature by valuing and respecting what nature gives humans, such as water, air, and fish, as the interdependent relationship between humans and nature is vital for both parties. The early Vietnamese believed in the existence of supernatural forces such as the land-god and the forest-spirit. Due to the development of science and exposure to Western cultures, modern Vietnamese are less likely to believe in these mysterious forms, but they still seek to maintain harmony with nature (Cuc, 1999). This is because most Vietnamese work in the agriculture, forestry, and fisheries sectors. Thus, in the Vietnamese consciousness, nature and people are inseparably linked. Human activities directly influence nature and the changes in nature directly affect humans' lives. If humans seek harmony with nature and protect it, human lives will be prosperous. Otherwise, human lives could be difficult.

The perception of harmony-with-nature has deep roots in Vietnamese culture and this perception is different from the perception of mastery-over-nature, which is more widely accepted in many cultures in the Western world. The mastery-over-nature relationship means nature can be controlled and "man is to conquer nature" (De Mooij, 2011, p. 43). In many countries in the Western world, humans and nature are viewed as separate entities and people seek to conquer nature via massive engineering projects (De Mooij, 2011). The difference in the perception of the man-nature relationship can influence the way people in different cultures cope with nature. For instance, in order to keep out rising tides, people who adhere to the harmony-with-nature relationship tend to avoid building permanent houses near the beach and instead live farther inland, whereas people who believe in the mastery-over-nature relationship tend to build sea walls or create other projects to control the tides (Bardhan & Weaver, 2011).

The Vietnamese cultural values and the perception of the interdependent relationship between humans and nature are crucial factors for communicators in encouraging the adoption of eco-friendly habits via product consumption. First, because Vietnamese culture values sacrifice, responsibility, and harmony, it can be expected that Vietnamese possess suitable characteristics to behave in an eco-friendly way. Second, it can be seen that the Vietnamese have developed a belief in human ecology, and this

may make it easier for communicators to persuade the Vietnamese to live in a more environmentally friendly way when they purchase products. Finally, in order to effectively change Vietnamese consumption behaviors, communicators can take advantage of the important cultural values in Vietnamese culture such as responsibility and harmony. For instance, communicators can design an advertising campaign for green products which emphasizes the harmony between humans and the nature, or the responsibility of humans to protect the environment.

2.13 Green advertisements in Vietnam

Currently, advertisements for green products from Vietnamese companies seem to be limited in the green messages being used, and these advertisements have not drawn much attention of consumers. For example, most claims in advertisements of green consumer products in Vietnam use the terms “environmentally friendly” and “protect the environment” as the main green-related appeals, although these terms lack information and can be perceived to be ambiguous (see Table 2.5, which summarizes the results of the search for green messages in advertisements of eco-friendly products of major green brands in Vietnam). In addition, the word “protect” seems to be used frequently and this word is a representation of a prevention-focused orientation.

In order to have a better understanding of how diverse green messages could be, the author of this thesis has searched for various advertisements of eco-friendly products of major green brands in two Western developed countries, Australia and New Zealand, using the same method when investigating green messages in Vietnam. The author used Google Web Search with various keywords such as “eco-friendly detergent,” “eco-friendly handwash,” “eco-friendly dishwash,” “environmentally friendly dishwash,” “environmentally liquid laundry,” “biodegradable cleaner,” “environmentally friendly shampoo,” etc. The summary of green messages used in these advertisements is presented in Table 2.6 and Table 2.7 below. Green messages which were used in Western developed countries are more diverse and rely on more specialized tactics such as using guilt appeals (including claims which induce a sense of guilt, e.g. “Stop torturing our aquatic life, clean with Earth Choice”) and achievement appeals (including claims which induce a sense of achievement, e.g. “Creating a greener footprint”). Such specialized tactics are rarely used in Vietnam. Besides, green advertisements in Australia and New Zealand do not use the word “protect,” a representation of prevention-focused orientation, as often as those in Vietnam. Instead, green

advertisements in these two comparative Western countries use mixed types of representations. For example, in addition to messages which consist of representations of promotion-focused orientation such as “greener” or “better” (which emphasize gains), there are messages which consist of representations of prevention-focused orientation such as “don't cost the earth” (which emphasize non-losses) and “safe” (which emphasize safety; see Table 2.6 and Table 2.7).

Table 2.6. Green-related claims in advertisements of consumer products in Vietnam (major brands only)

Established year	Company's name	Brand	Product type	Claims
-	ENZIM	ENZIM	Detergent	Biodegradable Environmentally friendly
2013	Thai An Service Trading Investment Co., Ltd	SISA	Detergent, dishwashing liquid, liquid cleaner	No NaOH Protect your hand(s) environmentally friendly
2009	Pacific Co., Ltd	BLUE RIBBON	Detergent	No Phosphate Protect the environment
2002	Cleanhouse Vietnam Co., Ltd	Pro-Green	Liquid cleaner	No nasty chemicals
2012	Infobuy Joint Stock Co	Greenlife	Dishwashing liquid, hand cleanser	100% natural ingredients Protect your hands, protect the environment
2008	Hoang Quan Construction., Jsc.	BIOME	Detergent, dishwashing liquid, hand cleanser	Protect the environment, protect your family's health
2005	Viet Lien Group	Leafresh	Dishwashing liquid	Safe, environmentally friendly
2013	Diamond Lifestyle Corporation	True Bio	Detergent	Environmentally friendly
2008	Petrovietnam Group	E5	Bio-fuel	Clean fuel, for a green planet

Table 2.7. Green-related claims in advertisements of consumer products in Australia (major brands only)

Established year	Company's name	Brand	Product type	Claims
1950	Natures Organics	Earth Choice	Laundry liquid, dish wash liquid, fabric softener	Stop torturing our aquatic life, clean with Earth Choice Gentle on the environment
2007	Nature Direct	Nature Direct	Cleaner	Protecting our families
1994 (in Sweden)	Naty By nature Babycare	Baby care, women care	Nappies, wipes,	Naturally breathable, GM free corn-based film, natural and renewable material, chlorine and fragrance free Go green without giving up performance
1977 (in Germany)	Sonett	Sonett	Dishwashing liquid, detergent, laundry products	Ecologically conscientious
1994	Enviro Care Earth	Enviro Care	Shampoo, conditioner, body cleanser	No phosphate & Chlorine
		Enviro Clean	Cleaner, dish wash liquid, laundry products	No caustic, no SLS
		Enviro Pet	Wash & conditioner for pets	Septic & Sewage, system safe
		All product lines		Products that don't cost the earth
2013	Ecoriginals	EnviroClean	Nappy, wipes	Biodegradable & compostable. Safe, free from harmful chemicals & fragrances. Affordable eco disposable nappies for Australian parents
-	Wotnot	Wotnot	Wipes, soaps, sunscreen, shopping bags, etc.	Natural, organic, biodegradable 100% what's good, 0% what's not

Table 2.6. (continued)

Established year	Company's name	Brand	Product type	Claims
-	ABC Tissue	Naturale	Toilet tissue	100% recycled, 100% biodegradable, made from used office paper, Soft on nature, soft on you
-	Bambo Nature	Bambo Nature	Diaper	The new generation of environment friendly diapers
-	Aware Environmental	Orange Power Organic Choice Aware Sensitive	Dishwasher, air freshener, laundry products	All natural, environmentally safe, less packaging The greener cleaner Creating a greener footprint

Table 2.8. Green-related claims in advertisements of consumer products in New Zealand (major brands only)

Established year	Company's name	Brand	Product type	Claims
1964	Earthwise group	Earthwise	Laundry powder, dish washing liquid, cleaning products, baby care products, body care products	No laundry enzymes, no optical brighteners, no Nitrates, no Chlorine, no Ammonia, Phosphate free, ... Caring for your world
-	ABC Tissue Products NZ Ltd.	Earthcare	Toilet tissues, kitchen towels, facial tissues, serviette	100% recycle 2ply, not re-bleach. Better for the environment
1920	B&F Paper	Cocoon Rockstock	Paper	100% recyclable, photo-degradable. Choosing green doesn't mean sacrificing premium print quality
2008	Live Simply	Simply	Laundry products	No phosphates, enzymes or optical brightener. 100% Recycled.
1990	ENJO NZ Ltd.	Enjo	Cleaning products	No chemicals - Just highly specialist fibre technology and water
-	GreenEarth Solutions Ltd.	Green Earth	Cleaning products	Biodegradable, 100% natural Natural eco-friendly cleaning solution.

Table 2.7. (continued)

1896	Energizer (NZ)	Energizer Eco Advance	Batteries	4% recycled. The world's first made with recycled batteries.
1993	Ecostore	Ecostore	Laundry products	Free brighteners, enzymes and synthetic fragrances. Bottle made 100% renewable sugarcane plastic, 100% recycled. Healthier products for you and environment.
		Ecostore	Batteries	Carbon neutral and manufactured with 0% Mercury, 0% Lead, 0% Cadmium. 80% Recycled.

In summary, there is a need to investigate the characteristics of effective green advertisements in Vietnam because of two main reasons. First, the nature of the interdependent culture of Vietnam can have an impact on how consumers respond to green advertisements. Second, there is a lack of research in green advertisements in Vietnam, an Eastern, developing country where interdependent culture is dominant. This investigation could not only boost the sales of eco-friendly products in Vietnam, but also contribute to an increase in the consumption of eco-friendly products in other contexts outside of developed, Western countries, where independent culture is dominant. Thus, in subsequent studies, data will be collected mainly in Vietnam to test the hypotheses in Figure 2.3. To compare the differences between the responses of consumers from an interdependent culture and those of consumers from an independent culture, this thesis will further collect data from both Vietnam (an interdependent culture) and New Zealand (an independent culture).

2.14 Conclusion

The aim of this chapter was to explore (1) how consumers use their preexisting knowledge to evaluate the credibility of advertisements of eco-friendly products and (2) potential factors which can affect this evaluation. This chapter was divided into two main parts, with the first part focused on the literature on the persuasion knowledge model and green advertisement credibility and the second part focused on the literature

on how to increase perceived message effectiveness, an important factor influencing message credibility evaluations.

The first part of this chapter reveals that because consumers have shown skepticism and reluctance to believe green product's advertisements, an investigation into credibility is necessary (section 2.2 and section 2.3). From the literature on the persuasion knowledge model of Friestad and Wright (1994; sections 2.4), this thesis proposes a framework of how consumers use their preexisting knowledge (persuasion knowledge, topic knowledge, and brand knowledge) to evaluate green message credibility, green brand credibility (section 2.5) and a factor which could influence the use of this knowledge (cognitive resources, section 2.6). This framework is illustrated in Figure 2.2, section 2.6. This framework shows that consumers use persuasion knowledge and topic knowledge to evaluate green message credibility and they use brand knowledge to evaluate green brand credibility. However, when consumers' cognitive resources are unconstrained, consumers are more likely to use more persuasion knowledge and topic knowledge to evaluate green message credibility and use less brand knowledge to evaluate green brand credibility. In contrast, when consumers' cognitive resources are constrained, consumers are likely to use less persuasion knowledge and less topic knowledge to evaluate green message credibility, and use more brand knowledge to evaluate brand credibility. In addition, perceived message effectiveness could moderate the impact of persuasion knowledge on message credibility. The following hypotheses were put forth:

H1: Cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to demonstrate a higher level of persuasion knowledge.

H2: The effect of the use of persuasion knowledge on green message credibility is moderated by green message effectiveness.

H2a: When green message effectiveness is high, consumers will perceive a higher level of green message credibility.

H2b: When green message effectiveness is low, consumers will perceive a lower level of green message credibility.

H3: Cognitive resources have a conditional indirect effect on green message credibility through the use of persuasion knowledge, conditioned on green message effectiveness:

H3a: If green message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of green message credibility, as a result of using more persuasion knowledge.

H3b: If green message effectiveness is low, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a lower level of green message credibility, as a result of using more persuasion knowledge.

H4: Consumers who have greater green brand knowledge are more likely to demonstrate a higher perception of green brand credibility.

H5: Cognitively constrained consumers (vs. cognitively unconstrained consumers) are more likely to base their green brand credibility evaluation on their green brand knowledge.

H6: Consumers who have greater green topic knowledge are more likely to demonstrate a higher perception of green message credibility.

H7: Cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to base their green message credibility evaluation on their green topic knowledge.

Because of the influence of message effectiveness on the framework, the second part of this literature review focused on exploring insights on how to create effective green messages in different cultures. From the literature on schema congruity theory (section 2.7), regulatory focus theory (section 2.8), regulatory fit theory and message framing techniques (section 2.9), cultural difference in self-construal (section 2.10), and the contextual thoughts induced by green advertisements (section 2.11), this thesis concludes that there are diverging predictions and mixed implications for advertisers to create effective advertisements of eco-friendly products, especially when advertisers want to advertise their products in different cultures (independent cultures vs. interdependent cultures). Consequently, this thesis proposes that consumers from an interdependent culture (vs. those from an independent culture) will perceive that prevention-framed green advertisements are more (less) effective and that consumers from an interdependent culture (vs. those from an independent culture) will perceive that promotion-framed green advertisements are more (less) effective (Figure 2.3, section 2.11). Because there is a lack of research on green advertisements outside the

context of Western, developed countries where independent culture is dominant, this thesis collects data from Vietnam, an Eastern, emerging economy where interdependent culture is dominant. The final sections of this chapter (section 2.12 and section 2.13) explore some characteristics of Vietnamese culture and green advertisements in Vietnam to explain how values of an interdependent culture could influence the way consumers perceive advertisements of eco-friendly products and how green advertisements look like in Vietnam. The following hypotheses were proposed:

H8: Consumers from an interdependent culture - Vietnam (vs. those from an independent culture – New Zealand) will perceive that prevention-framed green advertisements are more (less) effective.

H9: Consumers from an interdependent culture – Vietnam (vs. those from an independent culture – New Zealand) will perceive that promotion-framed green advertisements are more (less) effective.

The next chapter of this thesis presents the methodology employed in this thesis to examine the above hypotheses.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The purpose of this thesis is to develop a framework to explain the impact of consumers' existing knowledge (persuasion knowledge, topic knowledge, and brand knowledge) on the evaluation of green advertisement credibility and factors which could influence this evaluation. To establish this framework, studies were undertaken in two phases. In the first phase, two pretests were conducted to determine the most appropriate stimuli used to test the hypotheses. In the second phase, three studies were designed to examine the causal relationship between variables, as posted in the framework. This chapter presents the research methodology used in the two pretests and three main studies. It shows the overall research method and the justification for the use of this method. In addition, it outlines the research design and explains the sequence of pretests and studies.

Because each pretest and each study had their own data collection method, stimuli, measurement, and method of analysis, these sections are not discussed in this chapter and instead, are discussed in detail in chapter 4 (stimuli development) and chapter 5 (studies on how consumers form green advertisement credibility evaluations).

3.2 Research paradigm

In social science, how researchers view the world can influence the way they determine research questions, research methods, and how they interpret data. Within the marketing discipline, the two predominant paradigms which help guide research actions are the positivist and interpretivist approaches (Hudson & Ozanne, 1988). These paradigms differ in ontology, epistemology, and methodology (Guba & Lincoln, 1994). Given that the positivist paradigm underlies this research, it is crucial to understand the differences between the two research paradigms and why the positivist paradigm underpins the methodology of this research.

Ontology concerns about what the nature of reality is (Creswell et al., 2007). The positivist ontology assumes that the world is external to individuals' actions (Crotty, 1998) and there is a single objective reality to any research phenomenon (Hudson & Ozanne, 1988). The social order which requires individuals to conform to the rules and regulations is a restraining force that both acts on and inhibits its members (Carson et

al., 2001). In contrast, the interpretivists believe that the reality is multiple, relative (Hudson & Ozanne, 1988), and social reality is constructed in relation to individuals' thoughts (Carson et al., 2001). This study views the nature of reality of social interactions as constructed in relation to the social norms which individuals have been exposed to through their socialization. Thus, positivism is the ontological stance underpinning this study.

Epistemology refers to the nature of knowledge and how knowledge can be acquired (Carson et al., 2001). The positivist epistemology holds that knowledge is determined and can be discovered through empirical tests and quantitative methods such as survey, experiment. By observing, measuring, and testing a phenomenon, researchers can uncover the general, abstract laws (Coll & Chapman, 2000). In contrast, the interpretivist epistemology holds that knowledge is socially constructed and each individual interprets the world differently. Thus, it is more essential to understand the individual than to understand the universal laws. Individuals' perceptions can be discovered through qualitative methods such as in-depth interview, focus group, in which the standpoint of an individual is emphasized (Guba & Lincoln, 1994). Because the main focus of this thesis is on theory-testing that is guided by past literature and it aims to build a framework which can ideally be applied to an infinitely large number of people, this thesis adopted a positivist perspective.

Methodology refers to the approaches and procedure researchers use to investigate a phenomenon (Keeves, 1997). While positivists often use quantitative methods to explore knowledge, interpretivists often employ qualitative methods. Given that this study takes a positivist perspective, the quantitative methodology was used. Because the objective of this thesis is to examine the extent of difference regarding evaluations on credibility and effectiveness when consumers use different types of pre-existing knowledge, a quantitative method employing statistical analysis is considered suitable for the investigation. Among different quantitative methods, experimental research "is the only approach with which cause-and-effect relationships can be confidently measured" (Curtis & Curtis, 2011, p. 147). In an experimental design, the researcher manipulates one or more factors, or independent variables, to examine their effects on one or more dependent variables (Drager, 2018). Because this thesis aims to investigate many causal relationships (e.g. the impact of cognitive resources on the use of persuasion knowledge and on the relationship between green topic knowledge and green

message credibility), experimental research was used in the main studies to test the hypotheses. This thesis employed randomized experiments, in which participants were randomly assigned to a condition to create different groups of participants. This random assignment method helps mitigate potential bias if there are preexisting differences between groups of participants, which could influence the dependent variables (Shadish et al., 2002).

3.3 Research design

This thesis consisted of two phases: the first phase consisted of two pretests (Chapter 4 – Stimuli development) and the second phase consisted of three main studies (Chapter 5 – Studies on how consumers form green advertisement credibility evaluations). In order to test the hypotheses in the main studies, a green advertisement which is promotion-framed and a green advertisement which is prevention-framed were needed as stimuli. A promotion-framed message is a message which consists of promotion representations such as abstractness, change, gain, fun and enjoyment. A prevention-framed message is a message which consists of prevention representations such as concreteness, stability, loss, safety and security (Aaker & Lee, 2001; Lee et al., 2010; Liberman, 1999; Lin & Shen, 2012). It was important to conduct two pretests among populations of both independent and interdependent respondents in the first phase to establish appropriate stimuli for the main studies.

Based on the literature on promotion-related representations and prevention-framed representations, the author of this thesis could categorize green messages which are being used in the market into these two categories. However, the author's categorization alone could be biased. Thus, to mitigate the bias, this thesis presented pretest 1, in which participants were shown descriptions of two types of advertising messages (promotion-framed vs. prevention-framed). Then, they were shown 22 green messages which commonly appeared in advertisements of green household cleaning products in Australia, New Zealand, Vietnam and asked to decide which messages are promotion-framed and which messages are prevention-framed. The aim of this pretest was to determine which green messages being used in the market are classified by consumers as being promotion-framed and which were prevention-framed.

After deciding which green messages were sorted into which category, the author of this thesis could choose a promotion-framed message and a prevention-framed

message to create two green advertisements and use them as stimuli for the main studies. However, it was possible that these two green messages have different levels of perceived effectiveness and this difference might distort findings from the data, as perceived message effectiveness could be an influential factor on consumers' evaluations. Therefore, after pretest 1, pretest 2 was conducted to determine differences in perceived message effectiveness among these green messages. In this pretest, participants were shown different green advertisements and asked to answer questions about their perceived message effectiveness. The goal of pretest 2 was to mitigate the potential bias stemming from differential effectiveness when manipulating the types of messages in the main studies.

In the second phase, three studies were conducted to develop the framework of the impact of consumers' preexisting knowledge on green advertisement credibility evaluation and factors influencing this evaluation (Chapter 5). An illustration of the hypotheses tested in each study is shown in Figure 3.1 below. Because hypothesis 3 is complicated, it is not labeled in this figure and instead, it is illustrated in Figure 3.2.

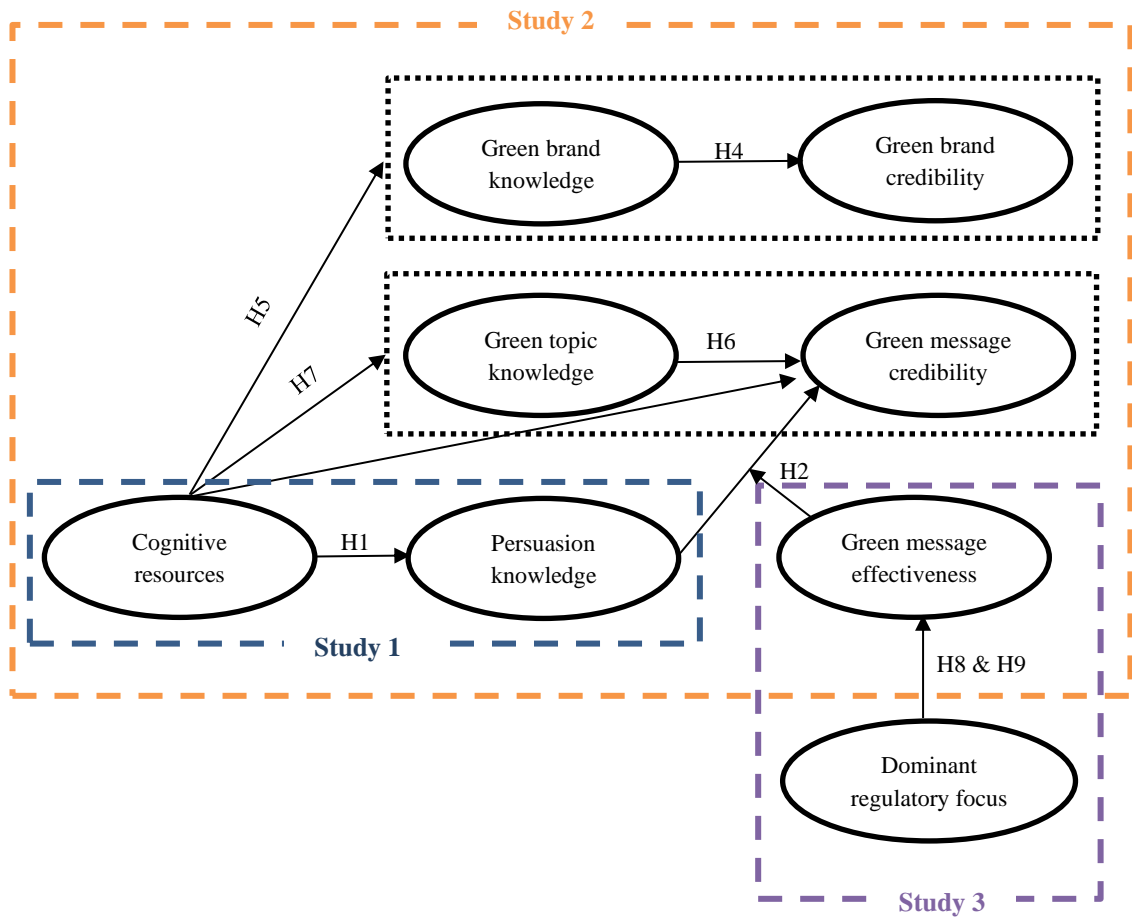


Figure 3.1. An illustration of hypotheses tested in three studies*

*: H3 is illustrated in Figure 3.2

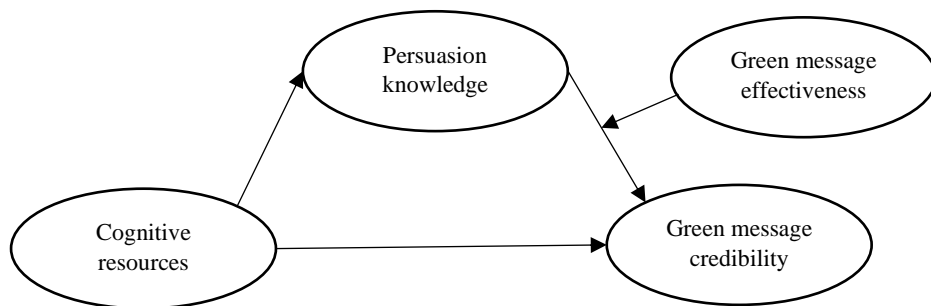


Figure 3.2. The conditional indirect effect of cognitive resources on message credibility (Hypothesis 3)

Study 1 was an experiment conducted via online to explore if cognitively unconstrained consumers use a higher level of persuasion knowledge than cognitively constrained consumers (hypothesis 1). In this experiment, participants' cognitive resources were manipulated and then, their use of persuasion knowledge was measured. The relationship between cognitive resources and the use of persuasion knowledge

should be confirmed as it influences the way the subsequent study would be conducted. If this relationship was confirmed, in the subsequent study, cognitive resources could be manipulated to activate persuasion knowledge and hypotheses 2 – 7 could be tested. Otherwise, hypothesis 3, which proposed that cognitive resources have a conditional indirect effect on message credibility through the use of persuasion knowledge, conditioned on message effectiveness, would be rejected. In addition, if this relationship was not confirmed, in order to test the hypotheses in the subsequent study, a priming technique instead would have to be used to ensure participants activate persuasion knowledge and evaluate message effectiveness. Study 1 was also designed to help plan the subsequent studies better. For example, it included additional questions to check the reliability of measurements of key constructs to be used in studies 2 and 3.

Study 2, an online experiment, was conducted to examine how consumers use existing knowledge to judge the credibility of green advertisements (hypotheses 2 – 7). To be specific, it investigated the role of perceived green message effectiveness in green message credibility evaluation (hypothesis 2) and the mechanism by which cognitive resources affect green message credibility through the use of persuasion knowledge (hypothesis 3). It also examined the relationship between cognitive resources, brand knowledge, and brand credibility (hypotheses 4 and 5). Finally, it explored the relationship between cognitive resources, topic knowledge, and message credibility (hypotheses 6 and 7). In this experiment, participants' cognitive resources were manipulated and then, variables related to the relationships mentioned above were measured.

After the hypotheses in study 2 had been confirmed, study 3 was conducted to examine whether consumers from an interdependent culture (Vietnam) and those from an independent culture (New Zealand) evaluate the effectiveness of a promotion-framed message and a prevention-framed green message differently (hypotheses 8 and 9). This final study was an in-person experiment, in which the types of messages (promotion-framed message vs. prevention-framed message) was manipulated and then, related variables were measured. This study was conducted after hypothesis 2, which proposed that the effect of the use of persuasion knowledge on green message credibility is moderated by green message effectiveness, had been confirmed in study 2. If hypothesis 2 was rejected in study 2, there would be no need to conduct study 3 and hypotheses 8 and 9 would become meaningless in this research.

Participants, the procedure of data collection, stimuli, and the measurement of variables were different across pretests and studies. These parts were later specified in detail in each pretest and each study.

The data collected in two pretests and three studies were analyzed by IBM SPSS Statistics version 23. The method of analysis was discussed in detail in each pretest and each study. In general, descriptive statistics were used to explore basic information about demographic variables in all pretests and studies. Cronbach's alpha was used to determine the reliability of scales. In pretest 1 and pretest 2, the Fisher's exact test, the two-tailed independent sample t-test, the Chi-square goodness-of-fit test, and the ANOVA test were employed. To test hypotheses 1 – 9, the two-way ANOVA test, the moderated mediation analysis based on Hayes (2017), and the regression analysis were performed.

3.4 Ethical considerations

All participants in the two pretests and the three studies were given a Participant Information Sheet before starting to participate in the research. This information sheet outlines details of the pretests and the studies, as well as the means by which anonymity and confidentiality will be ensured. Participant consent was voluntary and they could withdraw at any time prior to the completion of data collection. Participants were informed in the information sheet that completion of the survey is indicative of their consent to participants in the investigation. They did not have to answer questions if they did not want to and they had control over how they answered the questions. No personal or identifiable information was used in data analysis and reporting. Ethics approval of this thesis was granted on 28/6/2017 until 27/6/2020 by the Auckland University of Technology Ethics Committee (AUTEC) (see Appendix L).

3.5 Conclusion

This chapter presented an overview of the methodology used to investigate the framework developed in chapter 2. First, section 3.2 discussed the research method and the justification for the use of a variable-centric method and an experimental design. Then, along with the explanation of the sequence of pretests and studies, the research design was presented in section 3.3. Finally, ethical considerations were specified in section 3.4. The next chapter of this thesis presents two pretests conducted to develop stimuli for the main studies.

CHAPTER 4: STIMULI DEVELOPMENT

4.1 Introduction

This chapter covers the first phase of research of this thesis – stimuli development. It consists of two pretests, which were conducted to establish green advertisements, as drawn from existing message characteristics in the marketplace (see Tables 2.5, 2.6, and 2.7, section 2.13) to be used in the main studies of the second phase. Pretest 1 is an online survey which is designed to determine which green messages being used in the market are classified by consumers as being promotion-framed and which are prevention-framed. Pretest 2 is an experiment using an online panel. It is conducted to determine differences in perceived message effectiveness among the promotion-framed and prevention-framed advertising messages categorized in pretest 1. The goal of pretest 2 is to mitigate the potential bias related to diverging message effectiveness when manipulating the types of messages in the main studies.

4.2 Pretest 1

4.2.1 Purpose

This pretest was designed to determine which green messages being used in the market are classified by consumers as being promotion-framed and which are prevention-framed. Twenty-two green messages which commonly appeared in advertisements of green household cleaning products in Vietnam, Australia, and New Zealand (as in Tables 2.5, 2.6. and 2.7, section 2.13) were chosen to be tested, based on investigations into green advertising claims in these cultures (see Table 4.1 in Section 4.2.3 - Procedure).

4.2.2 Participants

Invitations to participate in the online survey were posted on the author's Facebook page from 8 July 2017 to 30 July 2017 (see Figure 4.1 and Figure 4.2 below). Because this pretest aims to collect data from both people from an independent culture (New Zealand) and people from an interdependent culture (Vietnam), two versions of invitation were created: one was written in English for New Zealanders and the other was written in Vietnamese for Vietnamese. Vietnamese and New Zealanders who are 18 years and over and were interested in participating in the online pretest had to click on

the link in the recruitment advertisements (see the screenshot of the recruitment advertisements below). The online pretest was created via Qualtrics.

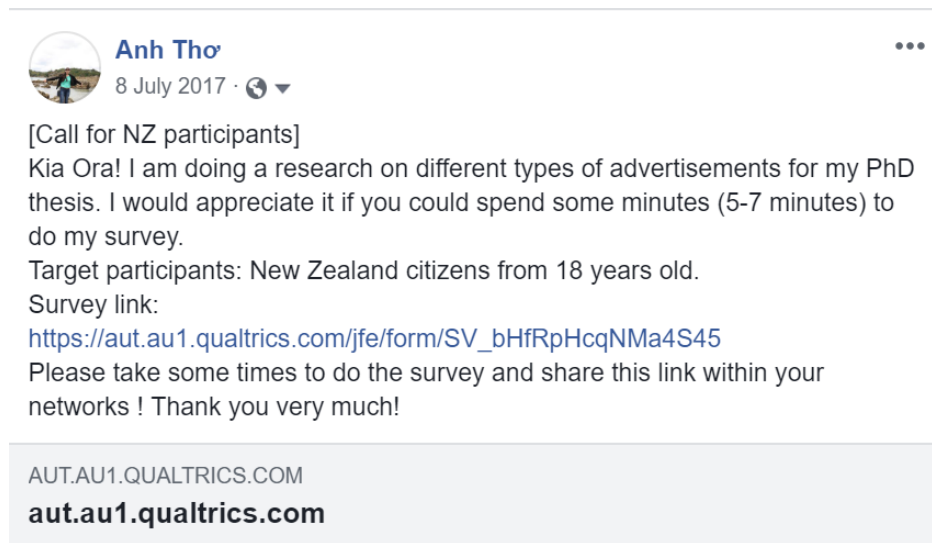


Figure 4.1. Participant recruitment for pretest 1 – English version

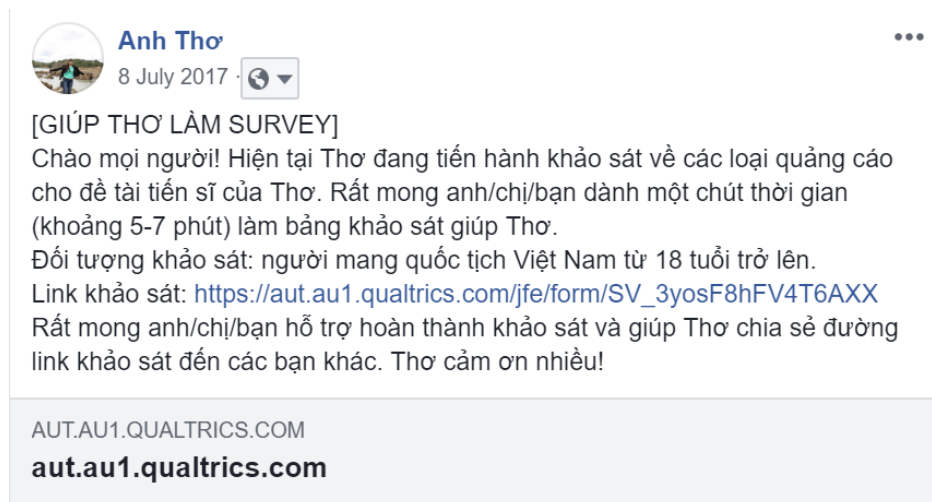


Figure 4.2. Participant recruitment for pretest 1 – Vietnamese version

By the end of 30 July 2017, 25 completed responses from New Zealanders and 25 completed responses from Vietnamese were recorded. In the New Zealander sample, 36% of respondents were male (N = 9) and 64 % of respondents were female (N = 16). The age range of respondents in this sample was from 20 years old to 43 years old and most of them were 30 years old (16%). Most respondents did not have any children (68%), had a postgraduate degree (44%), and earned NZD\$30,000 – NZD\$59,999 per year (48%).

In the Vietnamese sample, 24% of respondents were male (N = 6) and 76% of respondents were female (N = 19). Respondents in this sample were from 24 years old to 42 years old and most of them were 30 years old (36%). Most respondents did not have any children (52%), had a postgraduate degree (60%), and earned VND120,000,000 – VND179,999,000 per year (40%).

4.2.3 Procedure

The procedure of this pretest followed that of Wang and Lee (2006). After answering two screening questions about age (to determine whether participants are 18 years and over) and nationality (to determine whether participants are a New Zealander or Vietnamese), participants went through three stages.

In the first stage, participants were asked to read the definitions and examples of “type 1 messages” and “type 2 messages.” “Type 1” and “type 2” were used instead of “promotion-framed” and “prevention-framed” to eliminate the potential confusion associated with the meaning of the names of messages (“promotion-framed” and “prevention-framed”). Participants were shown that type 1 messages: (1) trigger feelings of accomplishment, advancement, and aspiration when consumers use the product; (2) indicate that people would feel cheerful when product features are present, and disappointed when they are absent; and (3) primarily focus on the gain of positive outcomes. Then, they were shown that type 2 messages: (1) trigger a sense of protection, responsibility, and security when consumers use the product; (2) indicate that the product has features that could help people avoid potential costs and losses when they use the product; and (3) people would feel relieved when these features are present and tense when they are absent. After that, participants were shown an example of a promotion-framed message (the powerful engine of a car, which can trigger the sense of advancement and aspiration) and an example of a prevention-framed message (a car’s antilock brakes, which can help trigger the sense of security and protection).

In the second stage, participants were asked to classify 22 green messages (as in Table 4.1 below) into three categories: type 1 messages, type 2 messages, and an “I don’t know” category. These are green messages which commonly appear in advertisements of green household cleaning products in Australia, New Zealand, and Vietnam (as in Tables 2.5, 2.6, and 2.7, section 2.13).

Table 4.1. Green messages to be tested in pretest 1

1	Better for the environment	12	100% natural eco-friendly cleaning solution
2	No nasty chemicals	13	100% natural ingredients
3	For a greener planet	14	Gentle on the environment
4	No laundry enzymes, No optical brighteners, No NaOH	15	Ecologically conscientious
5	Products that don't cost the earth	16	Soft on nature, soft on you
6	Safe, free from harmful chemicals & fragrances	17	Stop torturing our aquatic life, clean with our products
7	Your next step towards a better environment	18	Reduce your carbon footprint
8	Natural, organic, biodegradable	19	Creating a greener footprint
9	Safe for the environment	20	Free brighteners, enzymes and synthetic fragrances
10	Protect the environment	21	The greener cleaner
11	Environmentally friendly	22	Natural and renewable materials

Finally, in the third stage, participants were asked to complete questions about their gender, age, number of children, education level, and income. Details of questions used in this pretest are presented in Appendix A and Appendix B. Instructions and questions were presented in Vietnamese for Vietnamese respondents and in English for New Zealanders. The initial translations were performed by the researcher and then validated by an experienced academic English teacher in Vietnam.

4.2.4 Method of analysis

Before determining which green messages are classified as being promotion-framed and which are prevention-framed, potential differences in demographics of the two samples were tested using a two-tailed Fisher's exact test. The Fisher's exact test was performed because there were cells in which expected counts were less than 5 and the sample size of this pretest was small ($N = 25$ for each sample; Field, 2013). Then, the two-tailed Fisher's exact test and a two-tailed independent sample t-test were employed to examine if demographics influence respondents' responses (e.g. message categorization, response time). Finally, data from the two samples were combined and a Chi-square goodness-of-fit test was performed for each message to explore which messages belong to which categories (promotion-framed/prevention-framed category).

4.2.5 Results

The two-tailed Fisher's exact test was performed to examine whether the demographics of the two samples (Vietnamese and New Zealander samples) were different. The results showed that gender, age, education, and number of children in the household of respondents in the two samples were not statistically different ($p = .20$, $p = .73$, $p = .30$, $p = .31$, respectively, Fisher's exact test).

In order to examine the relationship between demographics and respondents' responses, first, two-tailed Fisher's exact tests were conducted separately for New Zealanders and Vietnamese to determine whether gender, age, education, number of children, and income level influence message categorization. The results were summarized in Table 4.2 and Table 4.3 below.

Table 4.2. Summary of p-values of Fisher's exact tests – New Zealander sample

	Exact Sig. (2-sided)				
	Gender	Age	Education	Number of children	Income level
Message 1	.17	.35	.83	.11	.28
Message 2	. ^a	. ^a	. ^a	. ^a	. ^a
Message 3	.36	.31	.70	.51	.07
Message 4	.69	.13	.74	.02	.60
Message 5	.49	.72	.89	.45	.75
Message 6	.60	.87	.49	1.00	1.00
Message 7	1.00	.59	.70	.32	.22
Message 8	.08	.01	.55	.88	.24
Message 9	.31	.93	.25	.32	.83
Message 10	1.00	.43	.51	.21	.97
Message 11	1.00	.04	.32	.30	.53
Message 12	.49	.50	.90	1.00	.79
Message 13	.49	.03	.45	.23	.69
Message 14	.10	.36	.43	.93	.53
Message 15	.30	.34	.79	.82	.98
Message 16	.61	.65	.94	.55	.69
Message 17	1.00	.54	.91	.05	.85
Message 18	1.00	.59	.46	.51	.72
Message 19	.36	.92	.96	.56	.06
Message 20	.82	.89	.28	.53	.35
Message 21	.43	.92	.95	.73	.10
Message 22	.08	.39	.98	.69	.32
N of valid cases	25				

^a No statistics were computed because all respondents categorized this message into one category.
p-value $\leq .05$ was printed in bold.

Table 4.3. Summary of p-values of Fisher's exact tests – Vietnamese sample

	Exact Sig. (2-sided)				
	Gender	Age	Education	Number of children	Income level
Message 1	.12	.45	.80	.23	.09
Message 2	. ^a	. ^a	. ^a	. ^a	. ^a
Message 3	1.00	.75	.54	.70	.45
Message 4	. ^a	. ^a	. ^a	. ^a	. ^a
Message 5	1.00	.39	.21	.15	.06
Message 6	1.00	.32	1.00	1.00	1.00
Message 7	.16	.32	1.00	1.00	.20
Message 8	1.00	.87	.23	.84	.83
Message 9	1.00	.93	.23	1.00	.45
Message 10	1.00	.97	1.00	.72	.69
Message 11	1.00	.48	1.00	.81	.49
Message 12	1.00	.13	1.00	.63	.32
Message 13	.18	.66	.81	.51	.69
Message 14	.32	.05	.04	1.00	.56
Message 15	.59	.38	1.00	1.00	.36
Message 16	.63	.56	.02	1.00	.69
Message 17	.58	.28	1.00	.37	.39
Message 18	.32	.38	1.00	.19	.75
Message 19	.24	.71	1.00	.86	.93
Message 20	1.00	.29	1.00	.16	.86
Message 21	1.00	.23	.56	.24	.76
Message 22	1.00	.15	.50	.23	.46
N of valid cases	25				

^a No statistics were computed because all respondents categorized this message into one category.
p-value \leq .05 was printed in bold.

For each sample, results revealed that in general, gender, age, education, number of children in the household, and income level did not have an impact on respondents' responses (100/105 p-values were larger than .05 in the New Zealander sample and 98/100 p-values were larger than .05 in the Vietnamese sample, Fisher's exact test).

Second, the potential impact of nationality on the respondents' responses was examined. A two-tailed independent sample t-test was conducted to compare the means of the time respondents in each sample spent on the surveys. The results showed that there was not a significant difference between the mean of the time New Zealander respondents spent on the survey ($M = 4421.48$, $SD = 19595.30$) and that of the time Vietnamese respondents spent on the survey ($M = 1187.88$, $SD = 2129.23$); $t(48) = .82$, $p = >.05$. Then, the two-tailed Fisher's exact test was conducted to test whether Vietnamese respondents and New Zealander respondents categorized each message in

the same manner (e.g. if a particular message was categorized into the prevention-framed category most of the time by Vietnamese respondents, was that message also categorized into the prevention-framed category most of the time by New Zealander respondents?). Of 22 messages being tested, p-values of Fisher's exact test of 20 messages were nonsignificant ($p > .05$), implying that Vietnamese respondents and New Zealander respondents categorized these 20 messages in the same manner. These messages were: 1-16, 18, 19, 21, and 22 (see the summary of p-values of Fisher's exact tests in Table 4.4 below). P-values of Fisher's exact test of the remaining 2 messages (17 and 20) were statistically significant ($p = .05$, $p = .01$, respectively), implying that Vietnamese respondents and New Zealander respondents categorized these messages differently. These results were used later to check which promotion-framed and prevention-framed messages were categorized in the same manner by both Vietnamese respondents and New Zealander respondents.

Table 4.4. Comparison of participants' categorization

	Exact Sig. (2-sided)		Exact Sig. (2-sided)
Message 1	1.00	Message 12	.39
Message 2	. ^a	Message 13	1.00
Message 3	.46	Message 14	.41
Message 4	.24	Message 15	.62
Message 5	.06	Message 16	1.00
Message 6	1.00	Message 17	.05
Message 7	.10	Message 18	.08
Message 8	1.00	Message 19	.29
Message 9	.07	Message 20	.01
Message 10	.55	Message 21	.47
Message 11	.11	Message 22	1.00
N of valid cases	50		

^a No statistics were computed because all respondents categorized message 2 into one category.
p-value $\leq .05$ was printed in bold.

Since there was no significant difference between the two samples in terms of demographics and responses of messages 1-16, 18, 19, 21, and 22, the data from the two samples were combined to conduct subsequent analysis related to these messages (data regarding messages 17 and message 20 were not be analyzed because Vietnamese respondents and New Zealander respondents categorized these messages differently, as mentioned in the previous section). To determine which messages belonged to the promotion-framed category and which messages belonged to the prevention-framed

category, the Chi-square goodness-of-fit test was performed for each message of the combined sample. The analysis in this section consisted of four steps.

First, for each message, the null hypothesis was that the proportion of respondents who categorized a particular message into the promotion-framed category equaled the proportion of respondents who categorized that message into the prevention-framed category, and equaled that of respondents who categorized that message into the “I don’t know” category.

The test statistics were significant for 16 messages: 1, 3-16, and 19 (p-values < .05), implying that for each of these 16 messages, the proportions of respondents who categorized a message into three different categories were different. The test statistics were not significant for 3 messages: 18, 21 and 22 (p-values > .05), implying that for each of these 3 messages, the proportion of respondents who categorized a message into the promotion-framed category equaled the proportion of respondents who categorized that message into the prevention-framed category, and equaled that of respondents who categorized that message into the “I don’t know” category. Because the purpose of the pretest was to determine which messages belonged to the promotion-framed category and which messages belonged to the prevention-framed category, in the subsequent analysis, data regarding messages 18, 21 and 22 will not be analyzed. A chi-square test could not be performed for message 2 because all 50 respondents categorized this message into the prevention-framed category. Therefore, message 2 was clearly prevention-framed.

Second, based on the test statistics reported above and the frequency table produced by SPSS, a table of the frequency of type 1 (promotion-framed messages) and type 2 (prevention-framed messages) vs. the sum of frequencies of other categories for 16 messages (1, 3-16, 19) was created (see Table 4.5 below). Message 2 was not included in this table because this message was determined as a prevention-framed message, while messages 17 and 20 were not included in this table because Vietnamese respondents and New Zealander respondents categorized these messages differently (as described in the results of Fisher’s exact tests for these two messages in the previous sections). As mentioned before, messages 18, 21 and 22 were not included in the subsequent analysis because for each of these 3 messages, the proportion of respondents who categorized a message into the promotion-framed category equaled the proportion

of respondents who categorized that message into the prevention-framed category, and equaled that of respondents who categorized that message into the “I don’t know” category.

Table 4.5. Frequencies of the three categories

	Type 1 (promotion-framed)	Type 2 (prevention-framed)	I don't know	Type 1/other categories	Type 2/other categories
Message 1	35	13	2	35/15	
Message 3	41	9	0	41/9	
Message 4	2	47	1		47/3
Message 5	15	31	4		31/19
Message 6	1	47	2		47/3
Message 7	43	7	0	43/7	
Message 8	32	17	1	32/18	
Message 9	17	33	0		33/17
Message 10	17	32	1		32/18
Message 11	31	12	7	31/19	
Message 12	27	22	1	27/23	
Message 13	29	19	2	29/21	
Message 14	25	23	2	25/25	
Message 15	25	23	2	25/25	
Message 16	19	30	1		30/20
Message 19	25	12	13	25/25	

Third, Chi-square goodness-of-fit tests were performed for messages 1, 3, 7, 8, and 11, 12 and 13 to examine whether the proportion of respondents who categorized a particular message into the promotion-framed category equaled the proportion of respondents who categorized that message into other categories. Chi-square goodness-of-fit test was not performed for messages 14, 15, and 19 because for each of these messages, the frequency of promotion-framed messages and the sum of frequencies of other categories were the same (25/25).

The test statistics were significant for message 1 ($\chi^2(1) = 8.00, p < .05$), message 3 ($\chi^2(1) = 20.48, p < .05$), message 7 ($\chi^2(1) = 25.92, p < .05$) and message 8 ($\chi^2(1) = 3.92, p < .05$), implying that there was evidence that these four messages were promotion-framed. The test statistics were not significant for message 11 ($\chi^2(1) = 2.88, p > .05$), message 12 ($\chi^2(1) = .32, p > .05$), and message 13 ($\chi^2(1) = 1.28, p > .05$), implying that there was not enough evidence to state that these three messages were promotion-framed.

Finally, Chi-square goodness-of-fit test was performed for messages 4, 5, 6, 9, 10, and 16 to examine whether the proportion of respondents who categorized a particular message into the prevention-framed category equaled the proportion of respondents who categorized that message into other categories. The test statistics were significant for message 4 and message 6 ($\chi^2(1) = 38.72, p < .05$), message 9 ($\chi^2(1) = 5.12, p < .05$), and message 10 ($\chi^2(1) = 3.92, p < .05$), implying that there was evidence that these four messages were prevention-framed. The test statistics were not significant for message 5 ($\chi^2(1) = 2.88, p > .05$) and message 16 ($\chi^2(1) = 2.00, p > .05$), implying that there was not enough evidence to state that these messages were prevention-framed.

4.2.6 Summary of the results of pretest 1

In short, there was statistical evidence that messages 1, 3, 7, and 8 were promotion-framed and that messages 4, 6, 9, and 10 were prevention-framed. As mentioned earlier, all respondents categorized message 2 into the prevention-framed category. Therefore, in total, data from pretest 1 allows the author to conclude that there are five prevention-framed messages (2, 4, 6, 9, 10) and four promotion-framed messages (1, 3, 7, 8; see the summary in Table 4.6 below).

Table 4.6. Summary of the results of pretest 1

No.	Promotion-framed messages	No.	Prevention-framed messages
1	Better for the environment	2	No nasty chemicals
3	For a greener planet	4	No laundry enzymes, No optical brighteners, No NaOH
7	Your next step towards a better environment	6	Safe, free from harmful chemicals & fragrances
8	Natural, organic, biodegradable	9	Safe for the environment
		10	Protect the environment

These nine messages will next be used in pretest 2 to test whether their effectiveness was the same or different. Examining and comparing the effectiveness of these messages will help mitigate potential bias when manipulating the types of messages (promotion-framed messages vs. prevention-framed messages). For example, in a study manipulating two types of messages to test the impact of message framing on consumer evaluations, it is possible that using two messages with different levels of perceived effectiveness (e.g. a promotion-framed message which has a higher level of

perceived message effectiveness than a prevention-framed message, or vice versa) could distort findings from the data, as perceived message effectiveness could be an influential factor on consumers' evaluation. Thus, pretest 2 will further examine the effectiveness of the four promotion-framed messages (1, 3, 7, 8) and the five prevention-framed messages (2, 4, 6, 9, 10) as determined in pretest 1.

4.3 Pretest 2

4.3.1 Purpose

The purpose of this pretest was to examine and compare the effectiveness of the four promotion-framed messages (1, 3, 7, 8) and the five prevention-framed messages (2, 4, 6, 9, 10) determined in pretest 1. The results of this pretest will help determine the green messages used in the subsequent, main studies. The ultimate goal is to determine which pairs of prevention and promotion messages have similar levels of perceived message effectiveness. This is important to create manipulations which have similar effectiveness in the main studies.

4.3.2 Participants

From 04 Sep 2017 to 13 Sep 2017, 160 completed responses from New Zealander participants were collected and from 25 Sep 2017 to 04 Oct 2017, 132 completed responses from Vietnamese participants were collected. These participants were recruited via the online panel CINT. They participated in exchange for small monetary compensation. They were asked to complete an online study created via study software Qualtrics.

In the New Zealand sample, 48.1% of respondents were female ($N = 77$) and 51.9% of respondents were male ($N = 83$). Approximately 80% of respondents were between ages 23 to 54. Most respondents did not have any children (44%), and the majority held a bachelor's degree (29.4%), and earned less than \$20,000 per year.

In the Vietnamese sample, half of respondents were female and the rest were male ($N = 66$ for each group). Similar to the New Zealander sample, about 80% of respondents were in the age range between 23 and 54. The majority of respondents did not have any children (41.7%), held a bachelor's degree (31.1%), and earned VND60,000,000 to VND119,999,999 per year.

4.3.3 Procedure, stimuli, and measurement

4.3.3.1 Procedure

Participants were informed that the purpose of this survey was to help design an advertisement for a green brand. After answering three screening questions about their nationality, age, and gender, each participant was randomly shown four or five advertisements of green products. The procedure was the same for both New Zealand and Vietnamese samples. Each respondent saw at least two promotion-framed advertisements and two prevention-framed advertisements. After examining each advertisement, participants were asked questions regarding their evaluation of the advertisement's effectiveness. Finally, they were asked to answer demographic questions to assess the potential impact of demographics on the individual's responses. Details of questions used in this pretest are presented in Appendix D and Appendix E.

4.3.3.2 Stimuli (the advertisement)

The green products used in this pretest were dishwashing liquid and laundry liquid, chosen because these types of eco-friendly consumer products are widely used and can be found easily in supermarkets in both New Zealand and Vietnam. Compared with other green products such as eco-friendly cars or eco-friendly clothes, eco-friendly dishwashing liquids and laundry liquid are also far more affordable for many households in these countries.

To manipulate the content of the advertising message in terms of promotion and prevention representations, two print advertisements were designed for an eco-friendly laundry liquid and an eco-friendly dishwashing liquid. Because nine green messages were selected in pretest 1, nine versions of the green advertisement were created. For example, the advertisement about an eco-friendly dishwashing liquid consisted of an image of a bottle of dishwashing liquid, its functions on the label of the bottle, as well as either a promotion-framed green message or a prevention-framed green message, as determined in pretest 1. The advertisements were designed as simply as possible to mitigate the potential influence of other factors on participants' responses, such as background colors and advertisement's frames. The green messages were printed in the middle of the advertisements so that participants could stay focused on the messages rather than on other features of the advertisements (see nine green messages in Table

4.7 below. See examples of green advertisements used in this pretest in Figures 4.3, 4.4, 4.5, and 4.6 below. See all advertisements in Appendix C).

Table 4.7. Green messages tested in Pretest 2

No.	Promotion-framed messages	No.	Prevention-framed messages
1	Better for the environment	2	No nasty chemicals
3	For a greener planet	4	No laundry enzymes, No optical brighteners, No NaOH
7	Your next step towards a better environment	6	Safe, free from harmful chemicals & fragrances
8	Natural, organic, biodegradable	9	Safe for the environment
		10	Protect the environment

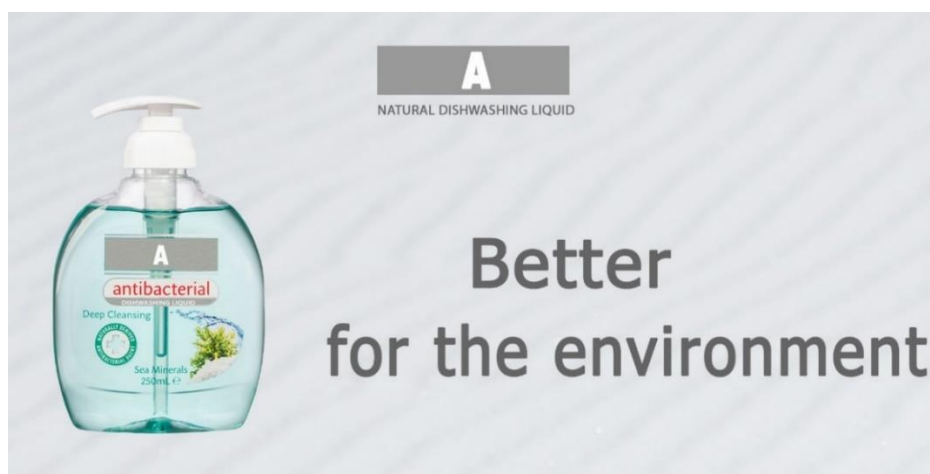


Figure 4.3. Promotion-framed advertisement used in pretest 2 (English version)



Figure 4.4. Promotion-framed advertisement used in pretest 2 (Vietnamese version)



Figure 4.5. Prevention-framed advertisement used in pretest 2 (English version)



Figure 4.6. Prevention-framed advertisement used in pretest 2 (Vietnamese version)

Prior research has shown that brand familiarity can influence consumer responses to advertising messages (Huang & Zhou, 2016; Pae et al., 2002) and in many cases consumers are more likely to favor familiar brands regardless of advertising content (Shapiro et al., 1997). In addition, company familiarity can potentially impact consumers' attitudes (Peterson et al., 1992). Therefore, a fictional "Brand A" was used to eliminate the potential effects of a familiar brand and company on participants' responses (Chang & Chou, 2008; Ford et al., 1996).

Advertisements and instructions were presented in Vietnamese for Vietnamese respondents and in English for New Zealanders. The initial translation from English to Vietnamese was performed by the researcher and the back translation was performed by an experienced academic English teacher in Vietnam.

4.3.3.3 Measurement

To assess the overall effectiveness of the advertisement, this study used the scale of persuasion effects developed by Shao et al. (2004). To gain further insight into respondents' evaluations of the specific green phrase in different advertisements in this pretest, the author also added two additional items (items 6 and 7) which measured the effectiveness of the green phrase in the advertisements. This new scale consisted of seven items with a seven-point Likert response format, where "1" = "strongly disagree", "7" = "strongly agree":

- (1) If I were to need [a product like this], this advertisement would persuade me to purchase brand A.
- (2) My general reaction to this advertisement is positive.
- (3) Regardless of my personal preference, this advertisement is effective.
- (4) After looking at this advertisement, I feel that the image of brand A is strong.
- (5) This advertisement helps the image of brand A.
- (6) I find the phrase [green message] impactful.
- (7) I find the phrase [green message] effective in persuading me to purchase brand A.

The phrase "[a product like this]" was replaced either by "an eco-friendly laundry liquid" or by "an eco-friendly dishwashing liquid". The phrase "[green message]" was replaced by one of nine messages determined in pretest 1 (see Table 4.7, section 4.3.3.2 – Stimuli).

Reliability of the scales

Cronbach's alpha was calculated to check the reliability of the scale used to measure variables with more than 2 items, while Pearson correlation coefficient was calculated to check the reliability of the scales used to measure variables with 2 items. This thesis used the threshold of Cronbach's alpha of 0.7 as suggested by Nunnally (1978) and the threshold of Pearson correlation coefficient of 0.5 as suggested by Field (2013) to determine the reliability of instruments.

Cronbach's alpha value of the overall message effectiveness for the New Zealander sample was .88 and that for the Vietnamese sample was .89. The last two items of this scale asked participants the extent to which they thought the specific message in the advertisement effective. Pearson correlation coefficients of these two items were $r = .70$ ($p < .05$) for the New Zealander sample and $r = .71$ ($p < .05$) for the

Vietnamese sample. In general, the scales used in this pretest were reliable. Seven items measured overall message effectiveness (hereafter refer to as EFF) were combined into one measure by taking the average of the responses to these items. Similarly, two items measured specific message effectiveness (hereafter refer to as PhraseEFF) were combined into one measure by taking the average of the responses to these two items.

4.3.4 Method of analysis

Before examining the differences in message evaluations in two samples, a descriptive analysis was performed to provide the information on the frequencies of green messages seen by respondents of two samples. Then, the potential difference in demographics of two samples was examined using the two-tailed Fisher's exact test, as there were cells in which expected counts are less than 5. After that, ANOVA tests were used to test if demographics have an impact on the respondents' responses. Finally, the differences in message evaluations in two samples were examined using two-tailed independent sample t-tests.

4.3.5 Results

Table 4.8 below shows the descriptive statistics of messages saw by respondents from two countries. For the New Zealander sample, 640 responses to nine advertisements were recorded and for the Vietnamese sample, 660 responses to nine advertisements were recorded (as shown in Table 4.8 below, because each respondent saw four or five advertisements). From now on, nine versions of the advertisements with nine different green messages would be named "message 1" to "message 10" as in Table 4.8. The message number was kept the same as that in pretest 1 to ensure the consistency between two pretests. Thus, there was no message 5.

Table 4.8. Frequencies of messages saw by respondents from two countries

Message number	Content of the advertisements	Nationality		Total
		New Zealand	Vietnam	
1	Better for the environment	80	67	147
2	No nasty chemicals	64	79	143
3	For a greener planet	80	64	144
4	No laundry enzymes, No optical brighteners, No NaOH	59	78	137
6	Safe, free from harmful chemicals & fragrances	63	78	141
7	Your next step towards a better environment	80	65	145
8	Natural, organic, biodegradable	80	68	148
9	Safe for the environment	67	81	148
10	Protect the environment	67	80	147
Total		640	660	1300

The two-tailed Fisher's exact test was performed to examine whether the demographics of the two samples (Vietnamese and New Zealander samples) are different. Results showed that gender, age, education, and number of children in the household of respondents in two samples were not statistically different ($p = .81$, $p = .99$, $p = .12$, $p = .78$, respectively, Fisher's exact test).

ANOVA tests were conducted separately for New Zealanders and Vietnamese to determine whether respondents from different demographics (gender, age, education, number of children, and income level) evaluated the overall message effectiveness (EFF) and the specific message effectiveness (PhraseEFF) differently.

Results are summarized in Table 4.9 and Table 4.10 below.

Table 4.9. Summary of p-values of ANOVA tests – New Zealander sample

	Gender	Age	Education	Number of children	Income
EFF1	.63	.66	.60	.06	.57
EFF2	.57	.25	.24	.25	.89
EFF3	.12	.48	.28	.15	.63
EFF4	.67	.99	.24	.67	.75
EFF6	.35	.92	.88	.24	.85
EFF7	.42	.14	.39	.36	.91
EFF8	.15	.74	.60	.46	.48
EFF9	.89	.64	.08	.71	.31
EFF10	.43	.63	.43	.16	.52
PhraseEFF1	.64	.41	.65	.32	.34
PhraseEFF2	.92	.48	.39	.18	.71
PhraseEFF3	.56	.49	.37	.53	.47
PhraseEFF4	.67	.99	.34	.69	.89
PhraseEFF6	.64	.95	.67	.32	.93
PhraseEFF7	.76	.07	.61	.19	.95
PhraseEFF8	.72	.53	.21	.79	.14
PhraseEFF9	.89	.65	.31	.70	.30
PhraseEFF10	.74	.63	.36	.21	.58

Table 4.10. Summary of p-values of ANOVA tests – Vietnamese sample

	Gender	Age	Education	Number of children	Income
EFF1	.66	.47	.32	.32	.15
EFF2	.24	.30	.62	.95	.18
EFF3	.32	.01	.70	.10	.20
EFF4	.25	.48	.84	.13	.82
EFF6	.83	.99	.45	.88	.40
EFF7	.73	.84	.37	.28	.40
EFF8	.64	.77	.92	.11	.78
EFF9	.49	.26	.02	.06	.60
EFF10	.03	.75	.02	.57	.08
PhraseEFF1	.25	.46	.40	.18	.16
PhraseEFF2	.16	.33	.55	.57	.28
PhraseEFF3	.24	.02	.76	.14	.17
PhraseEFF4	.37	.48	.79	.10	.83
PhraseEFF6	.63	.96	.35	.95	.56
PhraseEFF7	.63	.93	.28	.19	.46
PhraseEFF8	.23	.55	.56	.19	.64
PhraseEFF9	.30	.23	.02	.08	.60
PhraseEFF10	.07	.92	.08	.64	.16

Note: p-value $\leq .05$ was printed in bold.

For the New Zealander sample, gender, age, education, number of children in the household, and income level did not have an impact on respondent's evaluations (90/90 p-values were larger than .05). For the Vietnamese sample, although demographics had some impact on the evaluations of some messages, this result was not consistent across all messages (6/90 p-values were less than .05). For example, gender only influenced evaluations of messages 10; age only influenced evaluations of messages 3; and level of education influenced evaluations of messages 9 and 10. Thus, the author concludes that demographics do not consistently impact evaluation of message effectiveness.

ANOVA tests were conducted to determine whether Vietnamese respondents and New Zealander respondents evaluated EFF and PhraseEFF differently. The mean scores of EFF and PhraseEFF of all messages in the Vietnamese sample were higher than those in the New Zealander sample, implying that the Vietnamese were more likely to have higher evaluations on the effectiveness of the messages used in this pretest (see Table 4.11 below). Because nationality had an impact on respondents' responses, in the subsequent analysis, data of two samples will be analyzed separately first. Then, the results will be compared to find any similar patterns between the responses of two samples.

Table 4.11. The summary of mean scores of EFF and PhraseEFF in both samples

	Mean score -New Zealander sample	Mean score –Vietnamese sample	F	Sig.
EFF1	4.59	5.32	11.62	.00
EFF2	4.57	5.39	15.30	.00
EFF3	4.41	5.48	24.03	.00
EFF4	4.32	5.18	13.92	.00
EFF6	4.86	5.81	28.39	.00
EFF7	4.70	5.53	16.15	.00
EFF8	4.88	5.57	12.50	.00
EFF9	4.70	5.33	10.63	.00
EFF10	4.65	5.46	12.36	.00
PhraseEFF1	4.71	5.61	13.35	.00
PhraseEFF2	4.63	5.60	16.43	.00
PhraseEFF3	4.30	5.56	23.77	.00
PhraseEFF4	4.04	5.24	21.47	.00
PhraseEFF6	4.99	5.96	24.99	.00
PhraseEFF7	4.79	5.58	12.10	.00
PhraseEFF8	5.07	5.71	8.90	.00
PhraseEFF9	4.84	5.47	8.36	.00
PhraseEFF10	4.70	5.57	11.72	.00

In order to examine the differences in message evaluations in two samples and determining messages to be used in the studies, three stages of analysis were conducted. In the first stage, two-tailed independent sample t-tests were used to compare the means of EFF and PhraseEFF of promotion-framed messages (1, 3, 7, 8) and prevention-framed messages (2, 4, 6, 9, 10) in the New Zealander sample. Messages which were in different categories (promotion-framed category or prevention-framed category) and which had the same levels of effectiveness (both EFF and PhraseEFF) would be selected. Similarly, in the second stage, EFF and PhraseEFF of nine messages in the Vietnamese sample were compared. Messages which were in different categories and which had the same levels of effectiveness would be selected. In the last stage, messages selected in the first stage were compared with messages selected in the second stage to determine any similar pattern between responses of the two samples.

Two-tailed independent t-tests were conducted between each promotion-framed message and each prevention-framed message (1 vs. 2, 1 vs. 4, 1 vs. 6, 1 vs. 9, 1 vs. 10, 3 vs. 2, 3 vs. 4, 3 vs. 6, 3 vs. 9, 3 vs. 10, 7 vs. 2, 7 vs. 4, 7 vs. 6, 7 vs. 9, 7 vs. 10, 8 vs. 2, 8 vs. 4, 8 vs. 6, 8 vs. 9, 8 vs. 10) for the New Zealander sample. Results showed that the mean score of EFF4 was statistically lower than that of EFF8. The mean score of PhraseEFF4 was statistically lower than those of PhraseEFF1, PhraseEFF7, and PhraseEFF8. The mean score of PhraseEFF3 was statistically lower than that of PhraseEFF6 and that of PhraseEFF9 (see Table 4.12). This indicates that in subsequent studies, if the author wants to manipulate different types of messages to see if New Zealander consumers have more positive/negative evaluations on a promotion-framed message or a prevention-framed message, these 15 pairs of messages: 1 vs. 2, 1 vs. 6, 1 vs. 9, 1 vs. 10, 3 vs. 2, 3 vs. 4, 3 vs. 10, 7 vs. 2, 7 vs. 6, 7 vs. 9, 7 vs. 10, 8 vs. 2, 8 vs. 6, 8 vs. 9, and 8 vs. 10 can be used to design two advertisements with the same level of perceived message effectiveness: one is promotion-framed and the other is prevention-framed. Because the perceived message effectiveness of two messages in a pair is the same, using these messages in the data collection will help mitigate bias, as message effectiveness could be a factor which potentially influences consumer evaluations on advertisements.

**Table 4.12. Comparison of promotion-framed and prevention-framed messages
(New Zealander sample)**

	t	df	Sig. (2-tailed)	Mean score
EFF1 vs. EFF2	.08	142	.94	
PhraseEFF1 vs. PhraseEFF2	.31	142	.76	
EFF1 vs. EFF4	1.25	137	.21	
PhraseEFF1 vs. PhraseEFF4	2.48	137	.01	4.71 vs. 4.04
EFF1 vs. EFF6	-1.22	141	.23	
PhraseEFF1 vs. PhraseEFF6	-1.12	141	.27	
EFF1 vs. EFF9	-.53	145	.60	
PhraseEFF1 vs. PhraseEFF9	-.56	145	.57	
EFF1 vs. EFF10	-.29	145	.78	
PhraseEFF1 vs. PhraseEFF10	.02	145	.99	
EFF3 vs. EFF2	-.72	142	.47	
PhraseEFF3 vs. PhraseEFF2	-1.22	142	.23	
EFF3 vs. EFF4	.40	137	.69	
PhraseEFF3 vs. PhraseEFF4	.94	137	.35	
EFF3 vs. EFF6	-1.93	141	.06	
PhraseEFF3 vs. PhraseEFF6	-2.63	141	.01	4.30 vs. 4.99
EFF3 vs. EFF9	-1.34	145	.18	
PhraseEFF3 vs. PhraseEFF9	-2.17	145	.03	4.30 vs. 4.84
EFF3 vs. EFF10	-1.06	145	.29	
PhraseEFF3 vs. PhraseEFF10	-1.53	145	.13	
EFF7 vs. EFF2	.54	142	.59	
PhraseEFF7 vs. PhraseEFF2	.66	142	.51	
EFF7 vs. EFF4	1.64	137	.10	
PhraseEFF7 vs. PhraseEFF4	2.86	137	.00	4.79 vs. 4.04
EFF7 vs. EFF6	-.71	141	.48	
PhraseEFF7 vs. PhraseEFF6	-.79	141	.43	
EFF7 vs. EFF9	-.02	145	.98	
PhraseEFF7 vs. PhraseEFF9	-.03	145	.84	
EFF7 vs. EFF10	.19	145	.85	
PhraseEFF7 vs. PhraseEFF10	.37	145	.71	
EFF8 vs. EFF2	1.41	142	.16	
PhraseEFF8 vs. PhraseEFF2	1.78	142	.08	
EFF8 vs. EFF4	2.56	137	.01	4.88 vs. 4.32
PhraseEFF8 vs. PhraseEFF4	3.99	137	.00	5.07 vs. 4.04
EFF8 vs. EFF6	.07	141	.94	
PhraseEFF8 vs. PhraseEFF6	.31	141	.76	
EFF8 vs. EFF9	.86	145	.39	
PhraseEFF8 vs. PhraseEFF9	.97	145	.33	
EFF8 vs. EFF10	1.03	145	.30	
PhraseEFF8 vs. PhraseEFF10	1.49	145	.14	

Note: p-value $\leq .05$ was printed in bold.

The analysis of the Vietnamese sample in the second stage is similar to that of the New Zealander sample. Messages which were in different categories (promotion-framed category or prevention-framed category) and which had the same levels of effectiveness (both EFF and PhraseEFF) found in this stage would be chosen.

Two-tailed independent t-tests were conducted between each promotion-framed message and each prevention-framed message (1 vs. 2, 1 vs. 4, 1 vs. 6, 1 vs. 9, 1 vs. 10, 3 vs. 2, 3 vs. 4, 3 vs. 6, 3 vs. 9, 3 vs. 10, 7 vs. 2, 7 vs. 4, 7 vs. 6, 7 vs. 9, 7 vs. 10, 8 vs. 2, 8 vs. 4, 8 vs. 6, 8 vs. 9, 8 vs. 10). Results showed that the mean score of EFF6 was statistically higher than that of EFF1, the mean score of PhraseEFF6 was statistically higher than that of PhraseEFF3 and that of PhraseEFF7, and the mean score of PhraseEFF8 was statistically higher than that of PhraseEFF4 (as in Table 4.13 below). This indicates that in subsequent studies, if the author wants to manipulate different types of messages to see if Vietnamese consumers have more positive/negative evaluations on a promotion-framed message or a prevention-framed message, these 16 pairs of messages: 1 vs. 2, 1 vs. 4, 1 vs. 9, 1 vs. 10, 3 vs. 2, 3 vs. 4, 3 vs. 9, 3 vs. 10, 7 vs. 2, 7 vs. 4, 7 vs. 9, 7 vs. 10, 8 vs. 2, 8 vs. 6, 8 vs. 9, and 8 vs. 10 can be used to design two advertisements with the same level of perceived message effectiveness: one is promotion-framed and the other is prevention-framed.

Table 4.13. Comparison of promotion-framed and prevention-framed messages (Vietnamese sample)

	t	df	Sig. (2-tailed)	Mean score
EFF1 vs. EFF2	-.31	144	.76	
PhraseEFF1 vs. PhraseEFF2	.04	144	.97	
EFF1 vs. EFF4	.65	143	.51	
PhraseEFF1 vs. PhraseEFF4	1.56	143	.12	
EFF1 vs. EFF6	-2.64	87.92	.01	5.32 vs. 5.81
PhraseEFF1 vs. PhraseEFF6	-1.84	94.33	.07	
EFF1 vs. EFF9	-.03	146	.98	
PhraseEFF1 vs. PhraseEFF9	.62	146	.54	
EFF1 vs. EFF10	-.60	145	.55	
PhraseEFF1 vs. PhraseEFF10	.15	145	.88	
EFF3 vs. EFF2	.45	141	.65	
PhraseEFF3 vs. PhraseEFF2	-.18	141	.86	
EFF3 vs. EFF4	1.39	140	.17	
PhraseEFF3 vs. PhraseEFF4	1.32	140	.19	
EFF3 vs. EFF6	-1.92	87.66	.06	
PhraseEFF3 vs. PhraseEFF6	-2.04	88.68	.04	5.55 vs. 5.96
EFF3 vs. EFF9	.76	143	.45	
PhraseEFF3 vs. PhraseEFF9	.38	143	.70	
EFF3 vs. EFF10	.08	142	.94	
PhraseEFF3 vs. PhraseEFF10	-.06	142	.96	
EFF7 vs. EFF2	.74	142	.46	
PhraseEFF7 vs. PhraseEFF2	-.09	142	.93	
EFF7 vs. EFF4	1.69	141	.09	
PhraseEFF7 vs. PhraseEFF4	1.55	141	.12	
EFF7 vs. EFF6	-1.78	94.79	.08	
PhraseEFF7 vs. PhraseEFF6	-2.28	102.34	.02	5.58 vs. 5.96
EFF7 vs. EFF9	1.07	144	.29	
PhraseEFF7 vs. PhraseEFF9	.54	144	.59	
EFF7 vs. EFF10	.32	143	.75	
PhraseEFF7 vs. PhraseEFF10	.04	143	.97	
EFF8 vs. EFF2	.93	145	.36	
PhraseEFF8 vs. PhraseEFF2	.58	145	.56	
EFF8 vs. EFF4	1.88	144	.06	
PhraseEFF8 vs. PhraseEFF4	2.20	144	.030	5.71 vs 5.24
EFF8 vs. EFF6	-1.57	99.85	.12	
PhraseEFF8 vs. PhraseEFF6	-1.50	108.38	.14	
EFF8 vs. EFF9	1.27	147	.21	
PhraseEFF8 vs. PhraseEFF9	1.23	147	.22	
EFF8 vs. EFF10	.49	146	.63	
PhraseEFF8 vs. PhraseEFF10	.65	146	.52	

Note: p-value $\leq .05$ was printed in bold.

Finally, in the third stage, the results between the New Zealander sample and the Vietnamese sample were compared. Based on the results in the above sections, pairs which have different EFF or PhraseEFF in both samples and pairs which have the same levels of EFF or PhraseEFF in both samples are summarized in Table 4.14 below.

Table 4.14. Comparisons across samples of EFF and PhraseEFF

Pairs which have different levels of EFF or PhraseEFF in both samples	Pairs which have the same levels of EFF or PhraseEFF in both samples
Comparison between promotion-framed messages vs. prevention-framed messages	
<p>(Cell A) PhraseEFF4 vs. PhraseEFF8 PhraseEFF3 vs. PhraseEFF6</p>	<p>(Cell B) EFF1 vs. EFF2 PhraseEFF1 vs. PhraseEFF2 PhraseEFF1 vs. PhraseEFF6 EFF1 vs. EFF9 PhraseEFF1 vs. PhraseEFF9 EFF1 vs. EFF10 PhraseEFF1 vs. PhraseEFF10 EFF3 vs. EFF2 PhraseEFF3 vs. PhraseEFF2 EFF3 vs. EFF4 PhraseEFF3 vs. PhraseEFF4 EFF3 vs. EFF6 EFF3 vs. EFF9 EFF3 vs. EFF10 PhraseEFF3 vs. PhraseEFF10 EFF7 vs. EFF2 PhraseEFF7 vs. PhraseEFF2 EFF7 vs. EFF4 EFF7 vs. EFF6 EFF7 vs. EFF9 PhraseEFF7 vs. PhraseEFF9 EFF7 vs. EFF10 PhraseEFF7 vs. PhraseEFF10 EFF8 vs. EFF2 PhraseEFF8 vs. PhraseEFF2 EFF8 vs. EFF6 PhraseEFF8 vs. PhraseEFF6 EFF8 vs. EFF9 PhraseEFF8 vs. PhraseEFF9 EFF8 vs. EFF10 PhraseEFF8 vs. PhraseEFF10</p>

Note: pairs which had the same levels of EFF and PhraseEFF were printed in bold.

As mentioned previously, two messages which are in different categories (promotion-framed category and prevention-framed category) and which have the same levels of effectiveness can be used in studies which aim to manipulate types of messages to see the impact of types of messages on consumer evaluations (study 1 and study 3). In other words, any pair which had the same levels of EFF and PhraseEFF in cell B can be chosen to be used in these studies. Pairs which satisfied these conditions

are: 1 vs. 2, 1 vs. 9, 1 vs. 10, 3 vs. 2, 3 vs. 4, 3 vs. 10, 7 vs. 2, 7 vs. 9, 7 vs. 10, 8 vs. 2, 8 vs. 6, 8 vs. 9, 8 vs. 10.

4.3.6 Summary of the results of pretest 2

The purpose of this pretest was to compare the effectiveness of the four promotion-framed messages (1, 3, 7, 8) and the five prevention-framed messages (2, 4, 6, 9, 10) in two samples of pretest 1, to determine the most appropriate messages to be used in the main studies. Results reveal that in subsequent studies, the following types of messages are matched in terms of effectiveness:

- The promotion-framed message 1 (“Better for the environment”) could be used together with the following prevention-framed messages: message 2 (“No nasty chemicals”), message 9 (“Safe for the environment”), or message 10 (“Protect the environment”);
- The promotion-framed message 3 (“For a greener planet”) could be used with the following prevention-framed messages: message 2 (“No nasty chemicals”), message 4 (“No laundry enzymes, No optical brighteners, No NaOH”), or message 10 (“Protect the environment”);
- The promotion-framed message 7 (“Your next step towards a better environment”) could be used with the following prevention-framed messages: message 2 (“No nasty chemicals”), message 9 (“Safe for the environment”), or message 10 (“Protect the environment”);
- The promotion-framed message 8 (“Natural, organic, biodegradable”) could be used with the following prevention-framed messages: message 2 (“No nasty chemicals”), message 6 (“Safe, free from harmful chemicals & fragrances”), message 9 (“Safe for the environment”), or message 10 (“Protect the environment”).

Because two messages in these pairs have the same level of EFF and PhraseEFF, the use of these pairs could eliminate potential bias related to diverging message effectiveness when manipulating types of messages. The distinction between overall message effectiveness and phrase effectiveness was only used when comparing the effectiveness of two advertising messages in a pair. In subsequent studies, this thesis will use advertisements which have the same level of overall message effectiveness and phrase effectiveness. Thus, in those subsequent studies, only overall message

effectiveness will be examined and this variable is called “perceived message effectiveness”.

4.4 Conclusion

This chapter described the design, procedure and results of two pretests conducted to develop stimuli for the main studies in chapter 5. To test the proposed hypotheses, a green advertisement which is promotion-framed and a green advertisement which is prevention-framed are needed. Results from the two pretests showed that of 22 green messages being used in the market, four messages are promotion-framed and five messages are prevention-framed. The promotion-framed messages are: “Better for the environment,” “For a greener planet,” “Your next step towards a better environment,” and “Natural, organic, biodegradable.” The prevention-framed messages are: “No nasty chemicals,” “No laundry enzymes, No optical brighteners, No NaOH,” “Safe, free from harmful chemicals & fragrances,” “Safe for the environment,” and “Protect the environment.” Consumers perceived the effectiveness of these green messages differently. Pairs of promotion-framed vs. prevention-framed green messages which had the same level of perceived message effectiveness, however, were determined based on pretest 2 results (see these pairs in Section 4.3.6 – Summary of the results of pretest 2). These pairs can be used as stimuli in the subsequent studies to explore the framework of how consumers use their preexisting knowledge to evaluate green credibility and factors which could influence this evaluation.

CHAPTER 5: STUDIES ON HOW CONSUMERS FORM GREEN ADVERTISEMENT CREDIBILITY EVALUATIONS

5.1 Introduction

This chapter covers the second phase of research of this thesis – investigating the framework to explain the influence of consumers' preexisting knowledge on the evaluation of green advertisement credibility and factors which could influence this evaluation. It consists of three studies (from section 5.2 to section 5.4). An illustration of the hypotheses tested in this chapter is shown in Figure 5.1 and Figure 5.2 below.

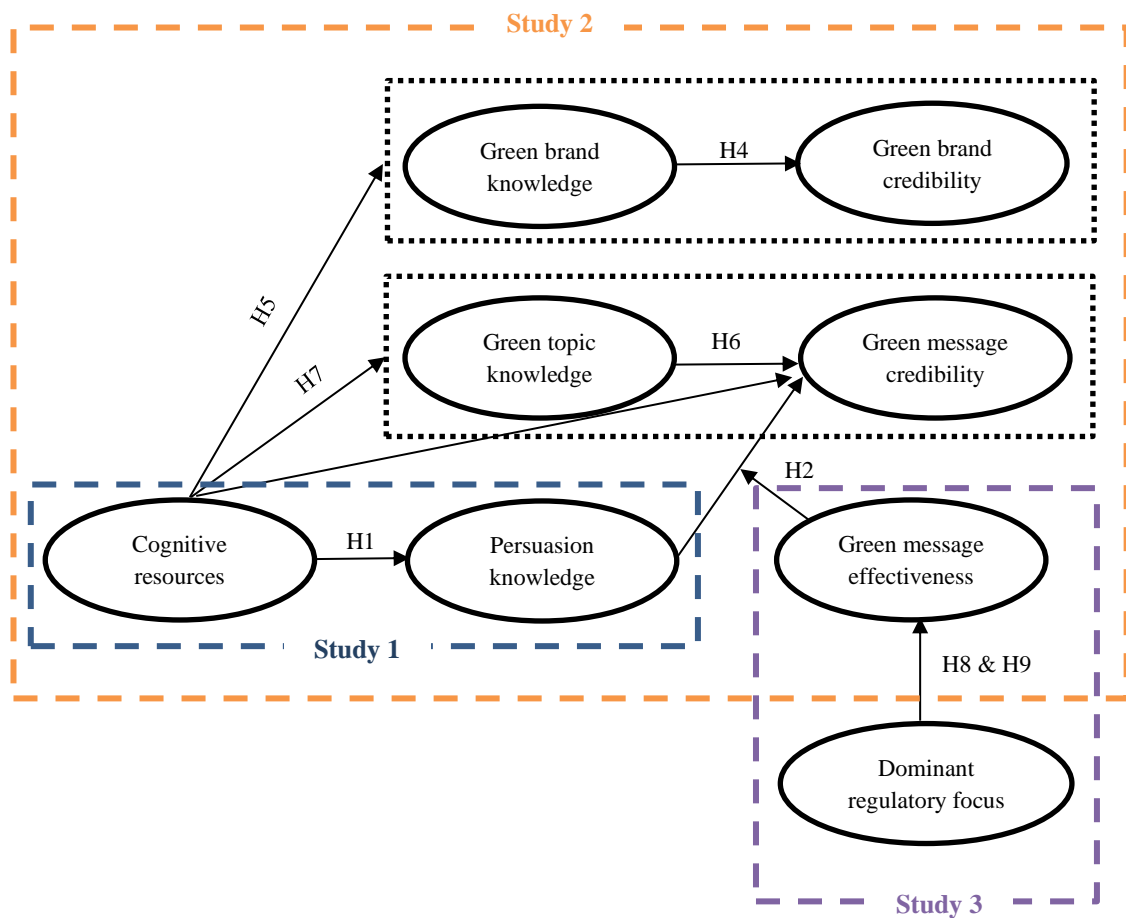


Figure 5.1. An illustration of the hypotheses tested in chapter 5*

* H3 is illustrated in Figure 5.2

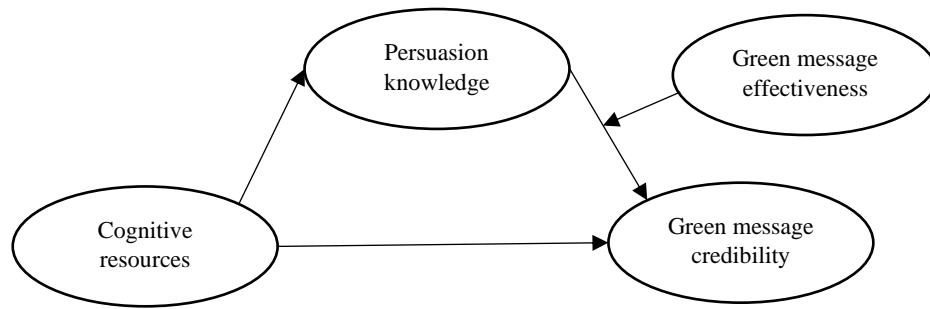


Figure 5.2. An illustration of the relationships tested in hypothesis 3 – study 2

First, study 1, an experiment with an online sample from Vietnam, is conducted to examine if cognitive resources have an impact on the use of persuasion knowledge (hypothesis 1). Study 1 also consists of some additional questions to help design study 2 better. Then, study 2, an experiment with an online panel from Vietnam, is conducted to test how consumers use persuasion knowledge, green topic knowledge, and green brand knowledge to judge the credibility of green advertisements. This study also examines the influence of cognitive resources and green message effectiveness on credibility evaluation (hypotheses 2 – 7). Finally, study 3, an in-person experiment, explores whether consumers from an interdependent culture (Vietnam) and those from an independent culture (New Zealand) evaluate the effectiveness of a promotion-framed green message and a prevention-framed message differently (hypotheses 8 and 9).

5.2 Study 1

5.2.1 Purposes

The key purpose of study 1 is to test hypothesis 1, which proposes that when cognitive resources are unconstrained, consumers will use a higher level of persuasion knowledge than when their cognitive resources are constrained (see Figure 5.3 below). To examine this influence of cognitive resources on the use of persuasion knowledge, in this study, participants' cognitive resources were manipulated and then, their use of persuasion knowledge was measured.

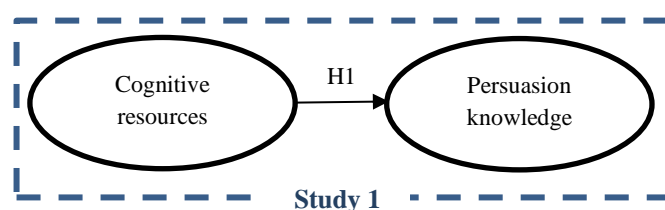


Figure 5.3. The relationship tested in study 1

Study 1 was also designed to serve two additional purposes: first, to check the reliability of measurements of key constructs to be used in subsequent studies: message effectiveness, message credibility, and individuals' regulatory orientation; and second, to check if using stimuli which are framed differently (promotion-framed and prevention-framed) will influence key constructs in the model. These additional steps will help the author design subsequent studies (i.e., study 2) better because these steps could help ensure that the consistency of measures used in the model is acceptable and that important constructs in the model are not affected by the type of message chosen.

5.2.2 Participants

According to Gravetter and Forzano (2015), for each treatment condition in an experiment in behavioral research, scholars should set a target of 25 or 30 subjects. In this study, there are four conditions: constrained cognitive resources condition, unconstrained cognitive resources condition, promotion-framed condition, and prevention-framed condition. Therefore, a target of at least 100 completed responses from Vietnamese participants was set. The convenience sampling technique was used. An advertisement about the online experiment was posted on the notice board of the Foreign Trade University in Vietnam to recruit students from this university. As incentives, those who completed the online experiment would have a chance to win one of three \$20 vouchers to shop at Coopmart – a popular supermarket in Vietnam. The online experiment was created via Qualtrics.

From 13 November 2017 to 30 November 2017, 142 completed responses from Vietnamese were collected. Of these, 47.2% of respondents were male ($N = 67$) and 52.8% of respondents were female ($N = 75$). The age range of respondents in this sample was from 18 years old to 24 years old and they were all undergraduate students from the Foreign Trade University.

The use of a student sample can become a threat to the external validity of a study. However, it is almost impossible to ascertain high levels of external validity and internal validity in one study, meaning researchers often have to accept a trade-off between them (Gravetter & Forzano, 2008). Because the main goal of this study is to obtain the explanation for a relationship among key variables, the priority is to minimize confounding variables which can provide alternative explanations for this relationship. More importantly, the development of persuasion knowledge mainly depends on an

individual's mental growth and social experiences (Friestad & Wright, 1994). Thus, the use of student sample can help researchers to control extraneous variables such as mental growth and social experiences more tightly, gaining a higher level of internal validity, and accordingly, accomplishing the main goal of this study. Besides, in order to achieve a high level of external validity, researchers have to ascertain the same results can be obtained across subjects, contexts, time, and procedure (Druckman & Kam, 2011). Therefore, the use of different subjects does not absolutely guarantee a higher level of external validity (Druckman & Kam, 2011). In short, the use of student samples is beneficial to this study.

5.2.3 Procedure, stimuli, and measurements

5.2.3.1 Procedure

Participants were informed that the purpose of this survey was to help design an advertisement for a green brand. After answering two screening questions, participants proceeded through three main stages of the study for a total of approximately 10 minutes in a 2 (cognitive resources: constrained vs. unconstrained) by 2 (message type: promotion vs. prevention) randomized design.

In the first stage, participants' cognitive resources were manipulated. Participants were randomly assigned to either an unconstrained cognitive resources condition or constrained cognitive resources condition. The procedure to manipulate cognitive resources used in this study is similar to that used in prior research (e.g. Pantoja et al., 2016; Pontari & Schlenker, 2000; Sukki et al., 2011). Participants in the constrained cognitive resources condition were shown an eight-digit number (i.e., "94658952") within 15 seconds and were asked to memorize this number. They were informed that they were not allowed to record the number elsewhere and they would have to write down the number later in the study. This ideally helped limit the level of cognitive processing participants in this condition used to elaborate on the advertising message presented later. Participants in the unconstrained cognitive resources condition were not tasked with the memory task and instead, were shown different photos of animals and had to choose (by clicking) the photos that contained cats. This task was designed to occupy the same amount of time (15 seconds) as the random-digit memorization task, yet was less cognitively taxing and did not ask respondents to memorize information.

In the second stage, message types (promotion-framed vs. prevention-framed messages) were manipulated and participants' evaluations of the advertisements were recorded. This manipulation was added to check if the message type has any impact on the use of persuasion knowledge. It is possible that a prevention-framed (or a promotion-framed) advertising message might trigger the activation of persuasion knowledge that, in turn, might affect participants' evaluations on the advertisement, and thus, confuse the results found in this study. This is important to test if the activation of persuasion knowledge depends not only on cognitive resources, but also on message types. Participants were randomly shown either a promotion-framed advertisement or a prevention-framed advertisement and instructed to answer questions about their use of persuasion knowledge, their perceptions of message effectiveness, message credibility, and a cognitive resources check. Following this, participants in the constrained cognitive resources condition were asked to recall and write down the eight-digit number to the best of their ability.

In the final stage, participants responded to demographic and individual difference measures and were asked questions about their gender and their chronic regulatory focus. Details of materials and questions used in this study are presented in Appendix F and Appendix G.

5.2.3.2 Stimuli (the advertisements)

The design of the advertisements used in the second stage of this study was the same as the design of advertisement 7 and advertisement 9 in pretest 2 (see Figures 5.4, 5.5, 5.6, and 5.7 below). These advertisements promoted a brand of eco-friendly laundry liquid. Advertisement 7 consisted of the promotion-framed message: “Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn” (English translation: “Your next step towards a better environment”), whereas advertisement 9 consisted of the prevention-framed message “An toàn cho môi trường” (English translation: “Safe for the environment”). According to pretest 2, these two advertisements had the same level of overall message effectiveness and phrase effectiveness and thus, the potential bias related to varying message effectiveness when manipulating the types of messages was mitigated.



Figure 5.4. The green advertisement 7 used in study 1 (Vietnamese)



Figure 5.5. The green advertisement 7 used in study 1 (English translation)



Figure 5.6. The green advertisement 9 used in study 1 (Vietnamese)



Figure 5.7. The green advertisement 9 used in study 1 (English translation)

To eliminate potential effects of a familiar brand and company on participants' response, the fictional "Brand A" was used in advertisements 7 and 9 (Chang & Chou, 2008; Ford et al., 1996), as in pretest 2.

Advertisements and instructions were presented in Vietnamese. The initial translation from English to Vietnamese was performed by the researcher and the back translation was performed by an experienced academic English teacher in Vietnam.

5.2.3.3 Measurements

The measurements of variables used in this study are summarized in Table 5.1 below.

Table 5.1. Measurements of variables in study 1

Variable name	Items and Cronbach's alpha/ Pearson's correlation coefficient	References
The use of persuasion knowledge	(1) While reading this advertisement, I thought about the meaning of the message of the item about A carefully. (2) While reading this advertisement, I analyzed the item about A. (3) While reading this advertisement, I evaluated the item about A. (4) The aim of this advertisement is to influence my opinion. (5) The aim of this advertisement is to make me like A. (6) The aim of this advertisement is to sell eco-friendly laundry liquid. (7) The aim of this advertisement is to stimulate the sales of eco-friendly laundry liquid. (where "1" = "strongly disagree", "7" = "strongly agree") Cronbach's alpha = .84	Items adapted from Boerman et al. (2014), Tutaj and van Reijmersdal (2012), and the literature on persuasion knowledge model (Friestad & Wright, 1994)

Table 5.1. (continued)

Variable name	Items and Cronbach's alpha/ Pearson's correlation coefficient	References
Message effectiveness	<p>(1) If I were to need an eco-friendly laundry liquid, this advertisement would persuade me to purchase brand A.</p> <p>(2) My general reaction to this advertisement is positive.</p> <p>(3) Regardless of my personal preference, this advertisement is effective.</p> <p>(4) After looking at this advertisement, I feel that the image of brand A is strong.</p> <p>(5) This advertisement helps the image of brand A.</p> <p>(6) I find the phrase [green message] impactful.</p> <p>(7) I find the phrase [green message] effective in persuading me to purchase brand A.</p> <p>(where "1" = "strongly disagree", "7" = "strongly agree"; The phrase [green message] was replaced by "Your next step towards a better environment", or "Protect the environment", or "A better environment")</p> <p>Cronbach's alpha = .85</p>	Adapted from Shao et al. (2004)
Message credibility	<p>I found the message in the advertisement to be:</p> <p>(1) Unconvincing (1) to convincing (7)</p> <p>(2) Biased (1) to unbiased (7)</p> <p>(3) Unbelievable (1) to believable (7)</p> <p>Cronbach's alpha = .83</p>	MacKenzie and Lutz (1989b)
Cognitive resources check	<p>(1) My mind was occupied with other thoughts as I look at the advertisement.</p> <p>(2) I found it hard to concentrate on the advertisement alone.</p> <p>(where "1" = "strongly disagree", "7" = "strongly agree")</p> <p>Pearson's correlation coefficient = .83 ($p < .05$)</p>	Pantoja et al. (2016)
Chronic regulatory focus	<p><i>Promotion Focus:</i></p> <p>(1) When it comes to achieving things that are important to me, I find that I don't perform as well as I would ideally like to do. (reversed score)</p> <p>(2) I feel like I have made progress toward being successful in my life.</p> <p>(3) When I see an opportunity for something I like, I get excited right away.</p> <p>(4) I frequently imagine how I will achieve my hopes and aspirations.</p> <p>(5) I see myself as someone who is primarily striving to reach my "ideal self"—to fulfill my hopes, wishes, and aspirations.</p> <p>(where "1" = "strongly disagree", "7" = "strongly agree")</p> <p>Cronbach's alpha = .46</p> <p><i>Prevention Focus:</i></p> <p>(6) I usually obeyed rules and regulations that were established by my parents.</p> <p>(7) Not being careful enough has gotten me into trouble at times. (reverse scored)</p> <p>(8) I worry about making mistakes.</p> <p>(9) I frequently think about how I can prevent failures in my life.</p> <p>(10) I see myself as someone who is primarily striving to become the self I "ought" to be—fulfill my duties, responsibilities and obligations.</p> <p>(11)(where "1" = "strongly disagree", "7" = "strongly agree")</p> <p>Cronbach's alpha = .56</p>	Haws et al. (2010)

The reliability of the scales

A factor analysis of the seven items measuring the use of persuasion knowledge showed that all seven items loaded on one factor (Cronbach's alpha = .84). Similarly, all seven items measuring overall message effectiveness loaded on one factor with a Cronbach's alpha of .85. Cronbach's alpha for message credibility was .83. These Cronbach's alpha values show that the scales of persuasion knowledge, message effectiveness, and message credibility were reliable.

Cronbach's alpha of the promotion focus scale was .46 and that of the prevention focus scale was .56. These values were much lower than the suggested value of 0.7, as suggested by Nunnally (1978). Therefore, in subsequent studies which examine the relationship between individuals' regulatory orientation and consumer responses (study 3), this thesis determines that it will not use regulatory scales from Haws et al. (2010) and instead, rely on other measures. In previous research, the individual regulatory orientation scale of Higgins et al. (2008) has been used widely and this scale shows a high level of reliability (e.g. Chen et al., 2017; Gushue & Hinman, 2018; Hsu et al., 2017; Seung, 2010). Thus, in the next study (study 2), this thesis will add questions to test the reliability of this scale. If the reliability is high, the scale of Higgins et al. (2008) would then be used in study 3.

Pearson's correlation coefficient of two items measured cognitive resources after the survey was $r = .83$ ($p < .05$), showing a high correlation between these items.

The average of seven items measured the use of persuasion knowledge, seven items measured message effectiveness, three items measured message credibility, two items measured cognitive resources were then calculated to create single evaluation measures for each construct.

5.2.4 Method of analysis

Before testing hypothesis 1, the potential impact of gender on respondents' responses was tested using ANOVA tests. This potential impact was examined because in some cases, demographic characteristics can influence dependent variables (Kuruvilla & Joshi, 2010) and this influence can distort the research findings. Then, a one-way ANOVA test was employed to check the cognitive resources manipulation. Finally, two-way ANOVA tests were performed to explore the influence of cognitive resources and message types on the use of persuasion knowledge and message evaluations.

5.2.5 Results

ANOVA tests were conducted to determine whether gender influenced the use of persuasion knowledge and respondent's evaluations. Results showed that gender did not have an impact on the use of persuasion knowledge ($F(1, 140) = .90, p > .05$), message effectiveness ($F(1, 140) = 3.73, p > .05$), and message credibility ($F(1, 140) = 2.39, p > .05$).

All participants in the constrained cognitive resources chose "Yes" for the question regarding whether they had viewed and attempted to memorize the number to the best of their ability. An ANOVA test was conducted to check if the memory test limited respondents' cognitive resources. The result revealed a significant effect of the memory test on cognitive resources, $M_{\text{unconstrained}} = 4.59, SD = 1.13; M_{\text{constrained}} = 5.34, SD = 1.29; F(1, 140) = 13.47, p < .05$. This means those with constrained cognitive resources were more likely to be occupied with the number they had to memorize and were less likely to concentrate on the advertisement they viewed than those with unconstrained cognitive resources.

Hypothesis 1 predicted that when cognitive resources are unconstrained, respondents will use a higher level of persuasion knowledge than when their cognitive resources are constrained. Supporting hypothesis 1, a 2x2 ANOVA revealed a significant main effect of cognitive resources on the use persuasion knowledge ($F(1, 138) = 9.82, p < .05$). The main effect of message type on the use of persuasion knowledge was nonsignificant ($F(1, 138) = .28, p > .05$) and the interaction effect between cognitive resources and type of message was nonsignificant ($F(1, 138) = .03, p > .05$).

The influence of cognitive resources and types of message on the use of persuasion knowledge can be seen in Figure 5.8 below. Regardless of the type of message (promotion vs. prevention), when cognitive resources were unconstrained (vs. when cognitive resources were constrained), respondents used a higher level of persuasion knowledge to evaluate the advertising message, $M_{\text{unconstrained}} = 5.21 (SD = .84, N = 72), M_{\text{constrained}} = 4.72 (SD = 1.03, N = 70)$. The main purpose of this study was achieved.

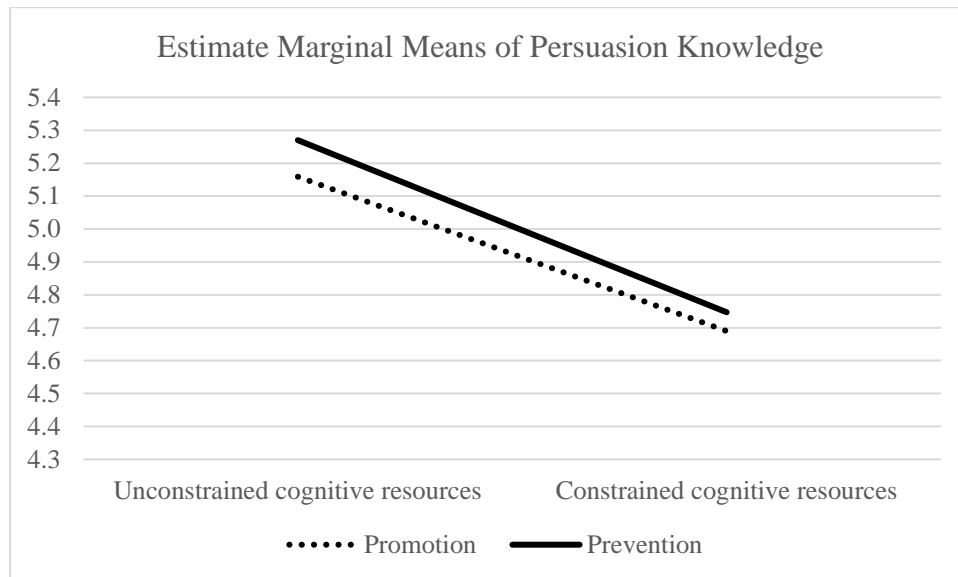


Figure 5.8. The influence of cognitive resources and types of message on the use of persuasion knowledge

Additional tests were conducted to examine the potential influence of cognitive resources and types of message on the evaluations of message, including message effectiveness and message credibility. A 2x2 ANOVA revealed a nonsignificant main effect of cognitive resources on message effectiveness ($F(1, 138) = .01, p > .05$), a nonsignificant main effect of message types on message effectiveness ($F(1, 138) = .73, p > .05$), and a nonsignificant interaction effect ($F(1, 138) = .19, p > .05$).

Similarly, a 2x2 ANOVA revealed a nonsignificant main effect of cognitive resources on message credibility ($F(1, 138) = .07, p > .05$), a nonsignificant main effect of message types on message credibility ($F(1, 138) = .28, p > .05$), and a nonsignificant interaction effect ($F(1, 138) = .09, p > .05$).

5.2.6 Summary of the results of study 1

The results of study 1 support hypothesis 1 by showing evidence that when cognitive resources are unconstrained, respondents use more persuasion knowledge to evaluate a green message than when their cognitive resources are constrained. These results are consistent with those in previous research on advertising and persuasion knowledge, which states that sufficient cognitive resources are a prerequisite for the recall of persuasion knowledge (Campbell & Kirmani, 2000; Hossain & Saini, 2014). This finding not only helps contribute to the literature on antecedents of the use of persuasion knowledge, but also provide an alternative way to activate persuasion

knowledge in research on the influence of persuasion knowledge on consumer responses. Further discussion and potential contribution will be presented in the final chapter.

Regarding the second purpose, results of study 1 reveal that the reliability of measurements of the key constructs of message effectiveness and message credibility is high and thus, in subsequent studies, these measurements will be used. The reliability of the scale used to measure individuals' regulatory orientation of Haws et al. (2010) was found to be low in this study among Vietnamese respondents and therefore, another scale will be chosen to measure this construct in subsequent studies. The scale of Higgins et al. (2008) will thus be examined in study 2 so that in study 3 where the relationship between individuals' regulatory orientation and consumer responses to different types of messages is examined, reliable measurements are used.

Regarding the final purpose, results suggest that types of messages (promotion-framed vs. prevention-framed) did not have an impact on the use of persuasion knowledge, message effectiveness, and message credibility. Therefore, in study 2, either a promotion-framed or a prevention-framed advertisement can be used to test the relationships among these constructs. In addition, study 1 also reveals that cognitive resources did not influence message evaluations for eco-friendly products via measures of message effectiveness and message credibility. If cognitive resources did not influence message evaluations directly, is it possible that cognitive resources influence message evaluations indirectly through the activation of persuasion knowledge? This question will be answered in study 2.

5.3 Study 2

5.3.1 Purposes

The purposes of study 2 are to: (1) investigate the mechanism by which cognitive resources affect green message credibility through the use of persuasion knowledge and perceived green message effectiveness (see H2 and H3 below); (2) examine the relationship between cognitive resources, green brand knowledge, and green brand credibility (see H4 and H5 below); (3) examine the relationship between cognitive resources, green topic knowledge, and green message credibility (see H6 and H7 below); and (4) check if the individuals' regulatory orientation scale of Higgins et al.

(2008) is reliable to be used for Vietnamese respondents. Illustrations of the relationships tested in these hypotheses are shown in Figure 5.9 and Figure 5.10 below.

H2: The effect of the use of persuasion knowledge on green message credibility is moderated by green message effectiveness.

H2a: When green message effectiveness is high, consumers will perceive a higher level of green message credibility.

H2b: When green message effectiveness is low, consumers will perceive a lower level of green message credibility.

H3: Cognitive resources have a conditional indirect effect on green message credibility through the use of persuasion knowledge, conditioned on green message effectiveness:

H3a: If green message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of green message credibility, as a result of using more persuasion knowledge.

H3b: If green message effectiveness is low, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a lower level of green message credibility, as a result of using more persuasion knowledge.

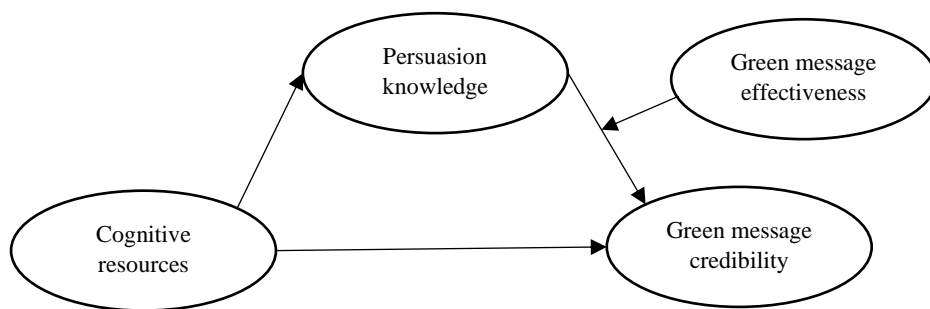


Figure 5.9. The relationships tested in hypothesis 3

H4: Consumers who have greater green brand knowledge are more likely to demonstrate a higher perception of green brand credibility.

H5: Cognitively constrained consumers (vs. cognitively unconstrained consumers) are more likely to base their green brand credibility evaluation on their green brand knowledge.

H6: Consumers who have greater green topic knowledge are more likely to demonstrate a higher perception of green message credibility.

H7: Cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to base their green message credibility evaluation on their green topic knowledge.

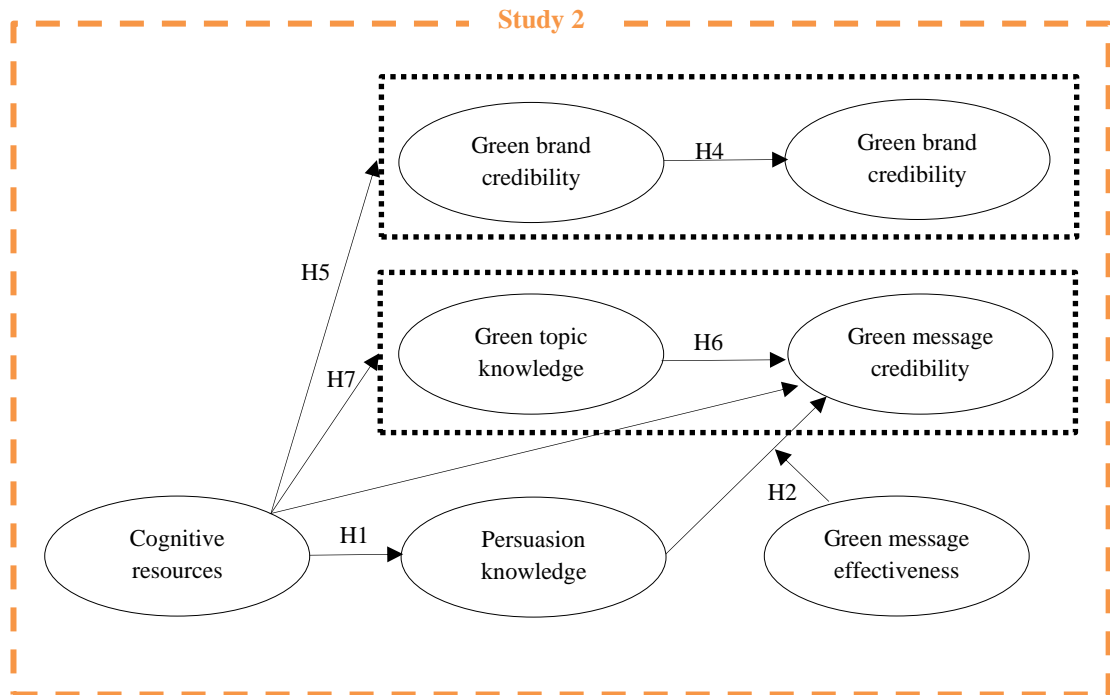


Figure 5.10. The relationships tested in study 2*

*: H3 is illustrated in Figure 5.9

To examine these hypotheses, in this study participants' cognitive resources were manipulated and then, variables related to these relationships were measured.

5.3.2 Participants

Four hundred completed responses from Vietnam were collected from 03 Feb 2017 to 12 Feb 2017. These participants were recruited via the online panel CINT. They participated in exchange for small monetary compensation. They were asked to complete an online study in Vietnamese, created via study software Qualtrics. A broader age range of consumers was recruited in this study to help foster external validity, as

suggested by Brewer and Crano (2000). The number of participants (400) satisfies the sample condition of experimental research suggested by Gravetter and Forzano (2015). Because larger samples are more likely to better represent the population (Gravetter & Forzano, 2015) and there are many relationships to be tested in this study, many more participants than suggested were recruited.

Half of the respondents were female and the rest of them were male ($N = 200$ for each group). About 75% of respondents were in the age range between 23 and 54. The majority of respondents did not have any children (30.5%), held a bachelor's degree (64.3%), and earned VND60,000,000 to VND119,999,999 per year.

5.3.3 Procedure, stimuli, and measurements

5.3.3.1 Procedure

Participants were informed that the purpose of this survey was to help design an advertisement for a green brand. After answering three screening questions about their nationality, age, and gender, participants were randomly assigned to either an unconstrained cognitive resources condition or constrained cognitive resources condition. The procedure to manipulate cognitive resources used in this study is similar to that used in prior research (e.g. Pantoja et al., 2016; Pontari & Schlenker, 2000; Sukki et al., 2011) and in study 1. Participants in the constrained cognitive resources condition were shown an eight-digit number (i.e., "94658952") within 15 seconds and were asked to memorize this number. They were informed that they were not allowed to record the number elsewhere and they would have to write down the number later in the study. This ideally helped limit the level of cognitive processing participants in this condition used to elaborate on the advertising message presented later. Participants in the unconstrained cognitive resources condition were not tasked with the memory task and instead, were shown different photos of animals and had to choose (by clicking) the photos with cats. This task was designed to occupy the same amount of time as the random-digit memorization task (the next questions only appear after 15 seconds).

Next, participants were shown a promotion-framed advertisement of an eco-friendly product and were instructed to answer questions about message credibility, brand credibility, the use of persuasion knowledge, message effectiveness, and a manipulation check of cognitive resources availability. Following this, participants in the constrained cognitive resources condition were asked to recall and write down the

eight-digit number to the best of their ability. Finally, participants answered questions about their topic knowledge, brand knowledge, educational level, number of children, income, and their chronic regulatory focus. Details of materials and questions used in this study are presented in Appendix H and Appendix I.

5.3.3.2 Stimuli (the advertisement)

The design and the green message in the advertisement were the same as those of the promotion-framed advertisement used in study 1 (see Figure 5.11 and its translated version in Figure 5.12 below). The green message was “Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn” (“Your next step towards a better environment”). However, the brand name was shown in study 2 to examine the influence of a familiar brand on participants’ response. The brand Greenlife of Infobuy Joint Stock (originated in Vietnam) was chosen because consumers can easily purchase Greenlife products in major supermarkets in Vietnam. Therefore, brand awareness is relatively high among many consumers who shop at supermarkets in Vietnam. This brand only focuses on eco-friendly household products, including dishwashing liquid, handwashing liquid, and liquid detergent.



Figure 5.11. The green advertisement used in study 2 (Vietnamese)



Figure 5.12. The green advertisement used in study 2 (English translation)

Advertisements and instructions were presented in Vietnamese. The initial translation from English to Vietnamese was performed by the researcher and the back translation was performed by an experienced academic English teacher in Vietnam.

5.3.3.3 Measurements

All instruments used in this study are reliable, except for the scale of chronic prevention focus (Cronbach's alpha value = .67; see Table 5.2 below). In study 1, the individuals' regulatory orientation scale of Haws et al. (2010) was tested and the results showed that this scale generated low reliability when applied to the Vietnamese sample (Cronbach's alpha for the promotion focus scale was .46 and that of the prevention focus scale was .56). In this study, when using items of Higgins' scale to design the questionnaire to determine which scale fits the Vietnamese sample the best, results showed that the Cronbach's alpha for the promotion focus scale was .72 and that for the prevention focus scale was .67. Although the Cronbach's alpha of the prevention focus scale is less than 0.7, it is suitable to keep this item in the scale because of two main reasons. First, Higgins' scale is a well-developed, widely recognized and commonly used to measure chronic regulatory focus (Boesen-Mariani et al., 2010; Haws et al., 2010). Second, a regulatory focus scale with a Cronbach's alpha from .60 to .70 is considered adequately reliable (Haws et al., 2010) and there is evidence that this threshold has not only been applied to Higgins' scale, but also been applied to other regulatory orientation scales, such as Lockwood's scale (Lockwood et al., 2002). For example, in Latimer et al.'s (2008) study, Cronbach's alpha of prevention focus scale was 0.69 (Higgins' scale). Similarly, in Haws et al.'s (2010) study, the Cronbach's alpha of promotion focus scale was 0.64 (Higgins' scale). In Keller and Bless's (2006) study, the Cronbach's alpha of prevention focus scale was 0.67 (Lockwood's scale). Because of these two reasons, in the subsequent study (study 3), this study will rely on all items of Higgins' scale to measure the construct chronic regulatory orientation.

The measurements of variables, along with their Cronbach's alpha values and Pearson's correlation coefficient, are summarized in Table 5.2.

Table 5.2. Measurements of variables in study 2

Variable name	Items and Cronbach's alpha/ Pearson's correlation coefficient	References
Message credibility	I found the message in the advertisement to be: (1) Unconvincing (1) to convincing (7) (2) Biased (1) to unbiased (7) (3) Unbelievable (1) to believable (7) Cronbach's alpha = .86	MacKenzie and Lutz (1989b)
Brand credibility	(1) The brand Greenlife reminds me of someone who's competent (2) The brand Greenlife has the ability to deliver what it promises (3) The brand Greenlife delivers what it promises (4) The brand Greenlife's product claims are believable (5) Over time, my experiences with the brand Greenlife have led me to expect it to keep its promises, no more and no less (6) The brand Greenlife has a name you can trust (7) The brand Greenlife doesn't pretend to be something it isn't Cronbach's alpha = .89	Newell and Goldsmith (2001)
The use of persuasion knowledge	(1) While reading this advertisement, I thought about the meaning of the message about Greenlife carefully. (2) While reading this advertisement, I analyzed the message about Greenlife. (3) While reading this advertisement, I evaluated the message about Greenlife. (4) The aim of this advertisement is to influence my opinion. (5) The aim of this advertisement is to make me like Greenlife. (6) The aim of this advertisement is to sell an eco-friendly laundry liquid. (7) The aim of this advertisement is to stimulate the sales of an eco-friendly laundry liquid. (where "1" = "strongly disagree", "7" = "strongly agree") Cronbach's alpha = .89	Items adapted from Boerman et al. (2014), Tutaj and van Reijmersdal (2012), and the literature on persuasion knowledge model (Friestad & Wright, 1994)
Message effectiveness	<i>Overall message effectiveness (or message effectiveness) was measured by 7 items:</i> (1) If I were to need an eco-friendly laundry liquid, this advertisement would persuade me to purchase brand Greenlife. (2) My general reaction to this advertisement is positive. (3) Regardless of my personal preference, this advertisement is effective. (4) After looking at this advertisement, I feel that the image of brand Greenlife is strong. (5) This advertisement helps the image of brand Greenlife. (6) I find the phrase "Your next step towards a better environment" impactful. (7) I find the phrase "Your next step towards a better environment" effective in persuading me to purchase Greenlife. (where "1" = "strongly disagree", "7" = "strongly agree") Cronbach's alpha = .89	Adapted from Shao et al. (2004)

Table 5.2. (continued)

Variable name	Items and Cronbach's alpha/ Pearson's correlation coefficient	References
Topic knowledge	On a scale of 1 to 7, how much do you know about the impact of the following green products on environmental protection? 1- know nothing about, 7 - know a great deal about (1) Recycled paper products (2) Products not tested on animals (3) Green laundry detergents (4) Green cleaning products (5) Ozone friendly aerosols (6) Unleaded petrol (7) Energy saving appliances (8) Products in recycled/recyclable packaging (9) Compostable nappies Cronbach's alpha = .90	Bridget and Antonis (1995)
Brand knowledge	(1) I know the products of the brand Greenlife very well. (2) In general, I know a lot about the brand Greenlife. (3) I can describe the brand Greenlife to others in detail. Cronbach's alpha = .88	Karaosmanoglu et al. (2011)
Chronic regulatory focus	<i>How often do these events actually occur or have occurred in your life?</i> (1) Compared to most people, are you typically unable to get what you want out of life? (2) Growing up, would you ever "cross the line" by doing things that your parents would not tolerate? (3) How often have you accomplished things that got you "psyched" to work even harder? (4) Did you get on your parents' nerves often when you were growing up? (5) How often did you obey rules and regulations that were established by your parents? (6) Growing up, did you ever act in ways that your parents thought were objectionable? (7) Do you often do well at different things that you try? (8) Not being careful enough has gotten me into trouble at times. (9) When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do. (10) I feel like I have made progress toward being successful in my life. (11) I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (where "1" = "Never or seldom", "5" = "Very often" <i>Promotion Pride</i> : items 1 ^R , 3, 7, 9 ^R , 10, & 11 ^R <i>Prevention Pride</i> : items 2 ^R , 4 ^R , 5, 6 ^R , & 8 ^R R: Reverse score) Cronbach's alpha of Promotion pride = .72 Cronbach's alpha of Prevention pride = .67	Higgins et al. (2008)
Cognitive resources check	(1) My mind was occupied with other thoughts as I look at the advertisement. (2) I found it hard to concentrate on the advertisement alone. (where "1" = "strongly disagree", "7" = "strongly agree") Pearson's correlation coefficient = .85 ($p < .05$)	Pantoja et al. (2016)

The average of items measuring message credibility, brand credibility, persuasion knowledge, message effectiveness, the cognitive resources check, topic knowledge, and brand knowledge was calculated to create a single evaluation measure for each construct. To create a measure of relative regulatory strength, this study followed the procedure of Latimer et al. (2008), Cesario and Higgins (2008), and Keller and Bless (2006). First, the average of six items measuring promotion focus and the average of five items measuring prevention focus were calculated. Then, the prevention scores were subtracted from the promotion scores to create the relative regulatory strength score. Those who have a positive relative regulatory strength score have a stronger promotion-focused orientation and those who have a negative relative regulatory strength score have a stronger prevention-focused orientation.

5.3.4 Method of analysis

Before testing hypotheses, one-way ANOVA tests were conducted to determine whether demographics and the relative regulatory strength influence respondents' evaluations. The one-way ANOVA test was also used to reexamine the influence of cognitive resources on the use of persuasion knowledge. To examine the relationship among cognitive resources, the use of persuasion knowledge, green message effectiveness and green message credibility (hypotheses 2 and 3), a moderated mediation analysis based on Hayes (2017) was conducted (model 14). Hayes's SPSS macro module 1 was used to clarify the moderating role of green message effectiveness in the relationship between the use of persuasion knowledge and green message credibility. To explore the relationship between green brand knowledge and green brand credibility (hypothesis 4), as well as the impact of cognitive resources on this relationship (hypothesis 5), linear regressions were calculated. Linear regressions were also used to test the relationship between green topic knowledge and green message credibility (hypothesis 6), as well as the influence of cognitive resources on this relationship (hypothesis 7).

5.3.5 Results

ANOVA tests were conducted to determine whether demographics (age, gender, level of education, number of children, income) and relative regulatory strength influenced respondents' evaluations, including evaluations of message credibility, brand credibility, the use of persuasion knowledge, message effectiveness, brand knowledge, and topic knowledge. Results showed that age, gender, number of children, and

regulatory strength did not have an impact on the respondent's evaluations. However, level of education and income positively influenced topic knowledge ($F_{education}(6, 393) = 3.40, p < .05$; $F_{income}(5, 394) = 2.24, p = .05$). Further analysis into these relationships was conducted below.

Data for the level of education and topic knowledge were graphed to check if the pattern of relationship between these two variables was linear. Results showed that this relationship was not linear. Therefore, regression analysis was not used and instead, post hoc comparisons using the Bonferroni test were conducted. Results indicated that those who had 5th grade as their highest level of educational achievement had a low mean score for topic knowledge ($M = 3.28, SD = 2.11$), which was significantly lower than those with a college degree ($M = 5.34, SD = .10$), bachelor's degree ($M = 5.16, SD = 1.19$), and postgraduate degree ($M = 5.08, SD = .92$). Other comparisons were not significant. These results indicate that Vietnamese with more education know more about the topic of green products and sustainability, which makes sense because educated people may have a higher chance to read books, learn more about the importance of the environment, and understand more about how eco-friendly products could help protect the environment. Besides, those with a low level of education may feel challenged when encountering scientific terms commonly used when referring to the topic of sustainable or green products.

Data for income and topic knowledge were graphed and results showed that this relationship was linear. Therefore, a simple linear regression was calculated to predict topic knowledge based on income. A significant regression equation was found ($F(1, 398) = 10.79, p < .05$), with an R^2 of .03. Topic knowledge could be predicted from income by the following formula: Topic knowledge = $4.65 + .14 \times \text{Income}$. This formula indicates that when income increases, topic knowledge increases. In other words, Vietnamese consumers with higher income are more likely to have more knowledge about sustainable products than those with lower income. This is reasonable because those who have lower income may be less likely to tolerate the high cost of eco-friendly products and therefore, they are less likely to study what eco-friendly products are available in the market and their positive impacts on the environment.

In the subsequent analysis, level of education and income were not controlled because these two variables only influenced topic knowledge (an independent variable)

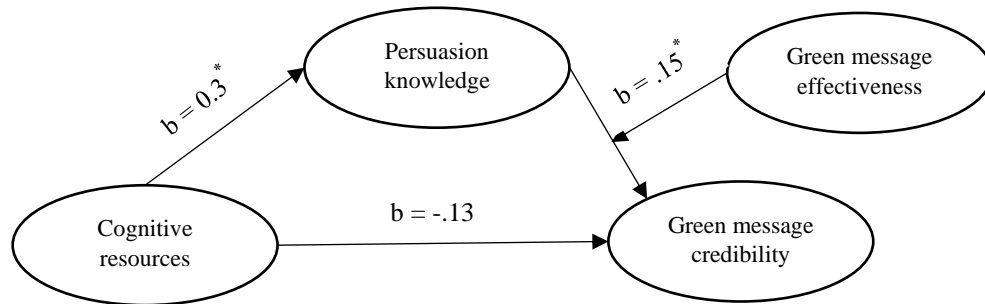
and they did not have an impact on main dependent variables (evaluations of message credibility and brand credibility).

The influence of cognitive resources on the use of persuasion knowledge was examined to reconfirm hypothesis 1. First, cognitive resources manipulation was checked. All participants in the constrained cognitive resources chose “Yes” for the question regarding whether they had viewed and attempted to memorize the number to the best of their ability. An ANOVA test was conducted to check if the memory test limited respondents’ cognitive resources. Result revealed a significant effect of the memory test on cognitive resources, $M_{\text{unconstrained}} = 4.40$, $SD = 1.64$; $M_{\text{constrained}} = 4.82$, $SD = 1.62$; $F(1, 398) = 6.67$, $p < .05$. This result is consistent with the result found in study 1, meaning that those with constrained cognitive resources were more likely to be occupied with the number they had to memorize and were less likely to concentrate on the advertisement they viewed than those with unconstrained cognitive resources.

Then, an ANOVA test was conducted to reexamine hypothesis 1, which predicted that when cognitive resources are unconstrained, respondents will activate a higher level of persuasion knowledge than when their cognitive resources are constrained. Supporting hypothesis 1, results revealed a significant effect of cognitive resources on the use persuasion knowledge, $M_{\text{unconstrained}} = 5.52$, $SD = .99$; $M_{\text{constrained}} = 5.22$, $SD = 1.16$; $F(1, 398) = 7.52$, $p < .05$.

Hypothesis 2 predicted that message effectiveness moderates the relationship between persuasion knowledge and message credibility. When message effectiveness is high, consumers will perceive a higher level of message credibility (H2a) and when message effectiveness is low, consumers will perceive a lower level of message credibility (H2b). Hypothesis 3 predicted that cognitive resources have a conditional indirect effect on message credibility through the use of persuasion knowledge, conditioned on message effectiveness. To be specific, when message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of message credibility, as a result of using more persuasion knowledge (H3a). In contrast, when message effectiveness is low, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a lower level of message credibility, as a result of using more persuasion knowledge (H3b).

To examine these relationships, a moderated mediation analysis based on Hayes (2017) was conducted. Hayes's SPSS macro module version 3.0 was used (model 14 with 5,000 bootstrapped samples). The independent variable was cognitive resources, the dependent variable was message credibility, the mediator was the use of persuasion knowledge, and the moderator was message effectiveness (see Figure 5.13 below).



Index of moderated mediation = .04 (95% CI: .01, .09)

*. Significant at the 0.05 level

Figure 5.13. The relationship among cognitive resources, the use of persuasion knowledge, message effectiveness and message credibility

Results revealed a significant positive effect of cognitive resources on the use of persuasion knowledge ($b = .30$, 95% CI: .08, .51, $t = 2.74$, $p < .05$). The relationship between cognitive resources on message credibility was nonsignificant ($b = -.13$, 95% CI: -.37, .11, $t = -1.08$, $p > .05$), indicating that cognitive resources do not have an impact on message credibility directly. These results are consistent with results of study 1.

Supporting hypothesis 2, a significant positive interaction effect between the use of persuasion knowledge and message effectiveness ($b = .15$, 95% CI: .06, .24, $t = 3.20$, $p < .05$) was found, indicating that message effectiveness moderates the relationship between persuasion knowledge and message credibility (see Figure 5.13 above). Results also revealed a significant positive conditional indirect effect of cognitive resources on message credibility through persuasion knowledge, conditioned on message effectiveness (Index of moderated mediation = .04, 95% CI: .01, .09).

To better understand both the moderating effect of message effectiveness on the relationship between persuasion knowledge and message credibility and the conditional

indirect effects of cognitive resources on message credibility through persuasion knowledge, conditioned on message effectiveness, further investigation into results were conducted below.

First, an investigation into the moderating effect of message effectiveness on the relationship between the use of persuasion knowledge and message credibility (Hypothesis 2) was conducted. According to the results of Hayes's SPSS macro module 1 (with 5,000 bootstrapped samples), the effect of persuasion knowledge on message credibility was contingent on message effectiveness. To be specific, when message effectiveness was moderate or high, participants who used more persuasion knowledge were more likely to perceive a higher level of message credibility ($b_{\text{moderate}} = .32$, 95% CI: .01, .54; $b_{\text{high}} = .50$, 95% CI: .22, .78). These results support H2a, which predicts that consumers will perceive a higher level of message credibility if message effectiveness is perceived to be high. However, when message effectiveness was low, message effectiveness did not influence the relationship between the use of persuasion knowledge and message credibility ($b_{\text{low}} = .13$, 95% CI: -.07, .34; see Table 5.3 below). H2b, which predicts that consumers will perceive a lower level of message credibility if message effectiveness is perceived to be low, was rejected.

Table 5.3. Conditional effects of the use of persuasion knowledge on message credibility at values of message effectiveness

Message effectiveness	Effects	95% bootstrap confidence interval	
Low	.13	-.07	.34
Moderate	.32	.10	.54
High	.50	.22	.78

To visualize this conditional effect, estimated effects produced by SPSS were graphed as in Figure 5.14 below.

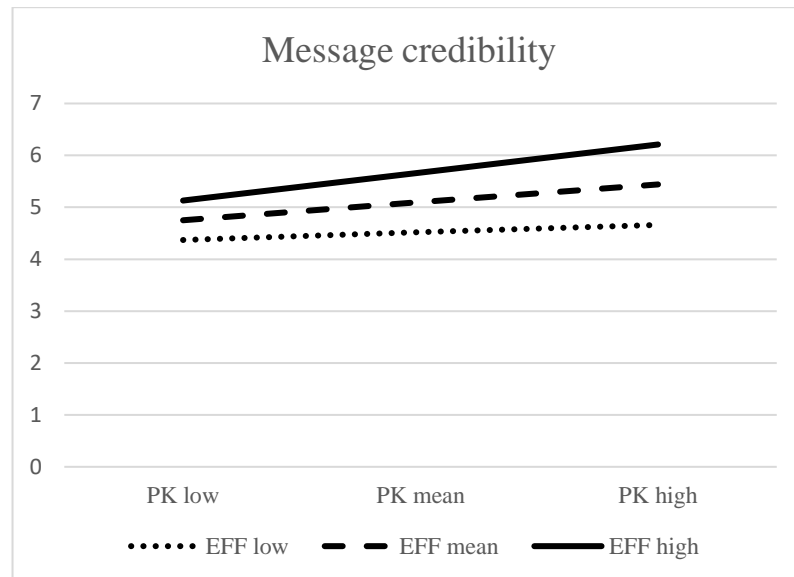


Figure 5.14. A visual representation of the moderation effect of message effectiveness

Second, an investigation into the conditional indirect effect of cognitive resources on message credibility through the use of persuasion knowledge, conditioned on message effectiveness (hypothesis 3) was conducted. This conditional indirect effect quantifies the amount by which two cases with a given value of message effectiveness that differ by one unit on cognitive resources are estimated to differ on message credibility. The difference of message credibility in two cases is indirectly influenced through cognitive resources' effect on the use of persuasion knowledge. In other words, at a given value of message effectiveness, cognitive resources could have an indirect impact on message credibility through persuasion knowledge. According to the results of Hayes's SPSS macro module 14, this conditional indirect effect existed when message effectiveness was moderate ($b_{\text{moderate}} = .09$, 95% CI: .02, .20) or high ($b_{\text{high}} = .15$, 95% CI: .04, .30). This supports H3a, which predicted that when message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of message credibility, as a result of using more persuasion knowledge. However, this conditional indirect effect disappeared when message effectiveness was low ($b_{\text{low}} = .04$, 95% CI: -.01, .12). This means H3b is rejected, which predicted that when message effectiveness is low, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a lower level of message credibility, as a result of using more persuasion knowledge (see Table 5.4 below). These results mean that when being exposed to a green advertisement with moderate or high effectiveness, participants with

unconstrained cognitive resources are more likely to perceive a higher level of message credibility, as a result of using more persuasion knowledge, whereas those with constrained cognitive resources are more likely to perceive a lower level of message credibility, as a result of using less persuasion knowledge. However, when being exposed to a green advertisement that is perceived to be of low effectiveness, cognitive resources do not have a conditional indirect impact on perceived message credibility.

Table 5.4. Conditional indirect effects of cognitive resources on message credibility through persuasion knowledge for various values of message effectiveness

Message effectiveness	Effects of cognitive resources on persuasion knowledge	Effects of persuasion knowledge on message credibility	Conditional indirect effects	95% bootstrap CI for conditional indirect effects	
Low	.27	.13	.04	-.01	.12
Moderate	.27	.32	.09	.02	.20
High	.27	.50	.15	.04	.30

Hypothesis 4 predicted that consumers who have greater brand knowledge are more likely to demonstrate a higher perception of brand credibility and hypothesis 5 predicted that cognitively constrained consumers (vs. cognitively unconstrained consumers) are more likely to base their brand credibility evaluation on their brand knowledge.

To test hypothesis 4, first, a scatter plot was produced with brand knowledge and brand credibility as dimensions along X-axis and Y-axis respectively to check if the assumption of linearity was met. The pattern of data suggested that the relationship displayed in the scatter plot was linear. Then, two linear regressions were calculated separately, one with data for participants in the constrained cognitive resources condition and the other with data for those in the unconstrained cognitive resources condition. Two significant regression equations were found ($F_{constrained}(1, 198) = 116.47$, $p < .05$, $F_{unconstrained}(1, 198) = 68.99$, $p < .05$) with $R^2_{constrained}$ of .37 and $R^2_{unconstrained} = .26$. The parameter estimates for two groups are shown in Table 5.5 and Table 5.6 below. Results suggested that in the two resource constraint conditions, when participants had greater brand knowledge, they were more likely to demonstrate a higher perception of brand credibility, supporting hypothesis 4.

Table 5.5. Parameter estimates in the constrained cognitive resources condition – Hypothesis 4

Coefficients ^{a,b}					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.76	.22		12.30	.00
BRAND_KNOWLEDGE	.64	.06	.61	10.79	.00

a. COGNITIVE_RESOURCE = 0

b. Dependent Variable: BRAND_CREDIBILITY

Table 5.6. Parameter estimates in the unconstrained cognitive resources condition – Hypothesis 4

Coefficients ^{a,b}					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.94	.18		21.47	.00
BRAND_KNOWLEDGE	.394	.05	.51	8.31	.00

a. COGNITIVE_RESOURCE = 1

b. Dependent Variable: BRAND_CREDIBILITY

To test hypothesis 5, the regression coefficients of participants in the two conditions were compared. The null hypothesis H_0 was that the regression coefficient for participants in the constrained cognitive resources condition ($B_{\text{constrained}}$) equals that for participants in the unconstrained cognitive resources condition ($B_{\text{unconstrained}}$).

To test H_0 , a variable called COG_BRK was created. COG_BRK was the product of the variable COGNITIVE_RESOURCES and BRAND_KNOWLEDGE. The variable COGNITIVE_RESOURCES was coded 0 for the constrained cognitive resources condition and 1 for the unconstrained cognitive resources condition. This means that for participants in the constrained cognitive resources condition, COG_BRK equals zero, and for participants in the unconstrained cognitive resources condition, it equals their brand knowledge. Three variables COGNITIVE_RESOURCES,

BRAND_KNOWLEDGE, and COG_BRK were used as predictors in the regression equation. The dependent variable was brand credibility. The term COG_BRK tested hypothesis Ho: $B_{\text{constrained}} = B_{\text{unconstrained}}$, or $B_{\text{constrained}} - B_{\text{unconstrained}} = 0$. Results showed that the regression coefficient $B_{\text{constrained}}$ was larger than the regression coefficient $B_{\text{unconstrained}}$, $t = -3.20$, $p < .05$. This indicates that cognitively constrained participants are more likely to base their brand credibility evaluation on their brand knowledge than cognitively unconstrained participants. Hypothesis 5 was thereby supported. Parameter estimates are shown in Table 5.7 below.

Table 5.7. Parameter estimates with 3 predictors – Hypothesis 5

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	2.76	.21		12.92
	COGNITIVE_RESOURCES	1.18	.29	.48	4.09
	BRAND_KNOWLEDGE	.64	.06	.70	11.34
	COG_BRK	-.24	.08	-.40	-3.20

a. Dependent Variable: BRAND_CREDIBILITY

Hypothesis 6 predicted that consumers who have greater topic knowledge are more likely to demonstrate a higher perception of message credibility, while hypothesis 7 predicted that cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to base their message credibility evaluation on their topic knowledge.

The procedure to test these two hypotheses is similar to the previous section. First, a scatter plot was produced with topic knowledge and message credibility as dimensions along the X-axis and Y-axis respectively to check if the assumption of linearity was met. The pattern of data suggests that the relationship displayed in the scatter plot was linear. Then, two linear regressions were calculated separately, one with data for participants in the constrained cognitive resources condition and the other with data for those in the unconstrained cognitive resources condition. Two significant regression equations were found ($F_{\text{constrained}}(1, 198) = 42.62$, $p < .05$, $F_{\text{unconstrained}}(1, 198) = 76.42$, $p < .05$), with $R^2_{\text{constrained}}$ of .18 and $R^2_{\text{unconstrained}} = .28$.

The parameter estimates for the two groups are shown in Table 5.8 and Table 5.9 below. Results suggested that in two conditions, when participants had greater topic

knowledge, they were more likely to demonstrate a higher perception of message credibility, supporting hypothesis 6.

Table 5.8. Parameter estimates in the constrained cognitive resources condition – Hypothesis 6

Coefficients ^{a,b}					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.82	.37		7.63	.00
TOPIC	.47	.07	.42	6.53	.00

a. COGNITIVE_RESOURCES = 0

b. Dependent Variable: MESSAGE_CREDIBILITY

Table 5.9. Parameter estimates in the unconstrained cognitive resources condition – Hypothesis 6

Coefficients ^{a,b}					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.78	.41		4.39	.00
TOPIC	.67	.08	.53	8.74	.00

a. COGNITIVE_RESOURCES = 1

b. Dependent Variable: MESSAGE_CREDIBILITY

To test hypothesis 7, the regression coefficients of participants in two conditions were compared. Similar to the previous section, a variable called COG_TOPIC was created. COG_TOPIC was the product of the variable COGNITIVE_RESOURCES (cognitive resources) and TOPIC (topic knowledge). For participants in the constrained cognitive resources condition, COG_TOPIC equals zero, and for participants in the unconstrained cognitive resources condition, it equals their topic knowledge. Three variables, COGNITIVE_RESOURCES, TOPIC, and COG_TOPIC, were used as predictors in the regression equation. The dependent variable was message credibility. The term COG_TOPIC tested hypothesis $H_0: B_{\text{constrained}} = B_{\text{unconstrained}}$, or $B_{\text{constrained}} - B_{\text{unconstrained}} = 0$. Results showed that the regression coefficient $B_{\text{constrained}}$ was not significantly different from the regression coefficient $B_{\text{unconstrained}}$, $t = 1.43$, $p > .05$, indicating that participants based their message credibility evaluation on their topic knowledge similarly in two conditions. Hypothesis 7 was rejected. The parameter estimates are shown in Table 5.10 below.

Table 5.10. Parameter estimates with 3 predictors – Hypothesis 7

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	2.99	.32		9.41
	COGNITIVE_RESOURCES	-.44	.49	-.18	-.90
	TOPIC	.41	.06	.39	6.63
	COG_TOPIC	.13	.09	.29	1.43

a. Dependent Variable: MESSAGE_CREDIBILITY

5.3.6 Summary of the results of study 2

Study 2 was conducted to serve three main purposes: (1) to investigate the relationship among cognitive resources, message credibility, the use of persuasion knowledge, and perceived message effectiveness; (2) to examine the relationship between cognitive resources, brand knowledge, and brand credibility; (3) to examine the relationship between cognitive resources, topic knowledge, and message credibility; and (4) to check if the individuals' regulatory orientation scale of Higgins et al. (2008) is reliable to be used for Vietnamese respondents.

First, the results of study 2 suggest that when being exposed to a green advertisement with perceptions of moderate or high effectiveness, those with unconstrained cognitive resources are likely to perceive a higher level of message credibility, as a result of using more persuasion knowledge. Those with constrained cognitive resources are likely to perceive a lower level of message credibility, as a result of using less persuasion knowledge. However, this conditional indirect effect of cognitive resources on message credibility will disappear when message effectiveness is perceived as being low. Second, results suggest that when participants have greater brand knowledge, they are more likely to demonstrate a higher perception of brand credibility and when cognitive resources are constrained, participants are more likely to base their brand credibility evaluation on their brand knowledge than when their cognitive resources are unconstrained. Third, when participants have greater topic knowledge, they are more likely to demonstrate a higher perception of message credibility. They based their message credibility evaluation on their topic knowledge similarly, regardless of whether their cognitive resources were constrained or unconstrained. Additionally, results of study 2 also show some evidence that those with a higher level of education and those with a higher level of income are more likely to

know more about eco-friendly products and their impacts on the environment. Further discussions and contributions will be presented in the final chapter.

Finally, the reliability test suggests that compared to the scale of Haws et al. (2010), the scale of Higgins et al. (2008) is more reliable for the Vietnamese sample and can be used to measure the individuals' regulatory orientation of Vietnamese respondents in the next study.

From the results of study 2, it is clear that perceived message effectiveness plays a significant role in determining how consumers perceive the credibility of a green advertisement. Thus, advertisers should pay attention to this construct. When designing an advertisement for eco-friendly products for consumers from different cultures, such as for those who are from an independent culture and for those who are from an interdependent culture, what should advertisers do to boost perceptions of message effectiveness? How could differences in individuals' regulatory orientation influence the perceived message effectiveness of green advertisements? Will framing advertising messages differently (promotion-framed vs. prevention-framed) help increase the perceived message effectiveness of consumers from different cultures? These questions will be addressed in study 3.

5.4 Study 3

5.4.1 Purposes

The key purpose of study 3 is to explore how advertisers should design advertisements of eco-friendly products for consumers in different cultures (independent culture vs. interdependent culture) so that consumers in these cultures perceive a higher level of message effectiveness. To achieve this purpose, this study was designed to test if consumers from Vietnam (an interdependent culture) and those from New Zealand (an independent culture) evaluate the effectiveness of a promotion-framed message and a prevention-framed message differently (see hypotheses 8, 9 and Figure 5.15 below). To examine this difference, the type of message (promotion-framed message vs. prevention-framed message) was manipulated and then, variables related to message effectiveness and individuals' regulatory orientation of participants from the two countries were measured.

H8: Consumers from an interdependent culture - Vietnam (vs. those from an independent culture – New Zealand) will perceive that prevention-framed green advertisements are more (less) effective.

H9: Consumers from an interdependent culture – Vietnam (vs. those from an independent culture – New Zealand) will perceive that promotion-framed green advertisements are more (less) effective.

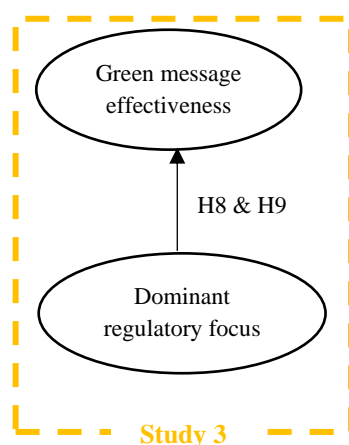


Figure 5.15. The relationship tested in study 3

In addition to the main purpose, data collected from study 3 were also used to confirm results related to hypothesis 2 in study 2, by reexamining the relationship between the use of persuasion knowledge, message effectiveness and message credibility.

5.4.2 Participants

From 27 March 2018 to 07 April 2018, 102 completed responses from Vietnamese were collected and from 10 April 2018 to 06 May 2018, 93 completed responses from New Zealanders were collected. In this study, there are four conditions that vary message type (promotion-framed vs. prevention-framed) and dominant regulatory orientation (promotion-focused vs. prevention-focused). The total number of participants (195) satisfies the sample condition of experimental research suggested by Gravetter and Forzano (2015). Participants were undergraduate students at the Foreign Trade University (Vietnam) and undergraduate students at the Auckland University of Technology in New Zealand. All respondents were students aged from 18 to 24 years old. Of these, 55.9% of respondents in the Vietnamese sample and 47.3% of respondents in the New Zealander sample were female.

As incentives, Vietnamese participants had a chance to win one of two \$25 vouchers to shop at Coopmart – a popular supermarket in Vietnam and New Zealander participants had a chance to win one of two \$50 vouchers to shop at Countdown supermarket, likewise a popular supermarket in New Zealand. The face value of vouchers was different in the two countries because of the difference in cost of living.

5.4.3 Procedure, stimuli, and measurements

5.4.3.1 Procedure

Participants in each country were informed that the purpose of this survey was to help design an advertisement for a green brand. Participants were randomly assigned to a “promotion-framed” condition or a “prevention-framed” condition and given a booklet that consisted of experimental materials. Experimental materials included a green advertisement (promotion-framed or prevention-framed, see Figures 5.16, 5.17, 5.18, and 5.19 in the stimuli section below), a small piece of paper with a code (each participant was assigned a code), and a set of questions about the activation of persuasion knowledge, perceived message effectiveness, message credibility, individuals’ regulatory orientation, and demographics.

Participants were given 20 seconds to read the advertisement in their booklet and answer questions. The advertisements, instructions, and questions in the booklet were presented in Vietnamese for Vietnamese respondents and in English for New Zealanders. The initial translations were performed by the researcher and then validated by an experienced academic English teacher in Vietnam.

An additional manipulation was conducted in each country to operationalize a behavioral intent measure to test participants’ perceived effectiveness towards different types of advertisements. Before each participant left the room, he/she was shown two large advertisements for another product category. One was promotion-framed and the other was prevention-framed (see Figures 5.20, 5.21, 5.22, and 5.23 in the stimuli section below). The participant was then asked to enter a draw for a chance to win one of two \$25 vouchers to shop at Coopmart supermarket (for participants in Vietnam) or one of two \$50 vouchers to shop at Countdown supermarket (for participants in New Zealand). In order to enter the draw, the participant had to vote for the more effective advertisement by putting his/her piece of paper (with the assigned code) into one of the two identical boxes below the two advertisements. The winners in each country were

drawn randomly from all valid entries in the box of the advertisement with the highest vote. Details of materials and questions used in this study were presented in Appendix J and Appendix K.

5.4.3.2 Stimuli (the advertisements)

The design of advertisements used in the main experiments was the same as the design of advertisements used in pretest 2 (see Figures 5.16, 5.17, 5.18, and 5.19 below). These advertisements promoted a fictional brand of eco-friendly laundry liquid (brand A). This fictional brand was used to mitigate the potential effects of a familiar brand and company on participants' response (Chang & Chou, 2008; Ford et al., 1996), as in pretest 2 and study 1.

The promotion-framed advertisement consisted of the message: “Your next step towards a better environment” (Vietnamese version: “Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn”), whereas the prevention-framed advertisement consisted of the message: “Protect the environment” (Vietnamese version: “Bảo vệ môi trường”). According to pretest 2, for each sample (Vietnamese sample and New Zealand sample), these two messages had the same level of overall message effectiveness. Thus, any potential bias related to varying message effectiveness when manipulating the types of messages was mitigated.



Figure 5.16. Promotion-framed advertisement (English version)



Figure 5.17. Prevention-framed advertisement (English version)



Figure 5.18. Promotion-framed advertisement (Vietnamese version)



Figure 5.19. Prevention-framed advertisement (Vietnamese version)

Similarly, the design of advertisements used in the additional behavioral-choice experiment was the same as the design of advertisement in pretest 2 (see Figures 5.20, 5.21, 5.22, and 5.23 below). These advertisements promoted a fictional brand of eco-friendly handwashing liquid. The promotion-framed advertisement consisted of the message: “Better for the environment” (Vietnamese version: “Tốt hơn cho môi trường”), whereas the prevention-framed advertisement consisted of the message: “Safe

for the environment” (Vietnamese version: “An toàn cho môi trường”). According to pretest 2, for each sample (Vietnamese sample and New Zealand sample), these two messages again had the same level of overall message effectiveness and thus, the potential bias related to varying message effectiveness when manipulating the types of messages was mitigated.



Figure 5.20. Promotion-framed advertisement (English version)

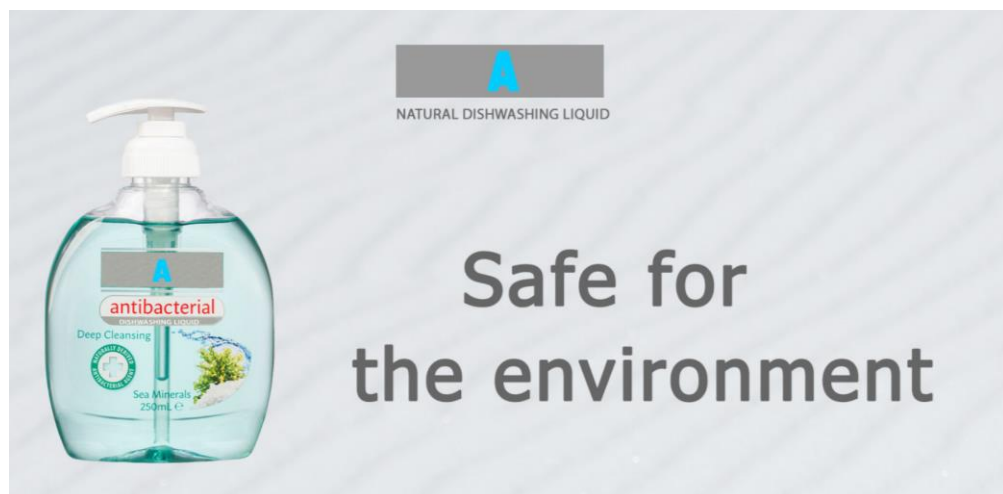


Figure 5.21. Prevention-framed advertisement (English version)



Figure 5.22. Promotion-framed advertisement (Vietnamese version)



Figure 5.23. Prevention-framed advertisement (Vietnamese version)

5.4.3.3 Measurements

All instruments used in this study are reliable, except for the scale of chronic prevention focus in the Vietnamese sample (Cronbach's alpha value = .68; see Table 5.11 below). The reliability of the prevention focus scale in this study for Vietnamese respondents is consistent with that in study 2 (Cronbach's alpha value = .67). As explained in study 2, although the Cronbach's alpha of this scale is less than 0.7, no items were deleted because Higgins' scale is widely recognized and commonly used to measure chronic regulatory focus (Boesen-Mariani et al., 2010; Haws et al., 2010) and a regulatory focus scale with a Cronbach's alpha from .60 to .70 has been accepted by the literature as being adequately reliable (Haws et al., 2010). The measurements of variables and their Cronbach's alpha values are summarized in Table 5.11 below.

Table 5.11. Measurements of variables in study 3

Variable name and references	Items	Cronbach's alpha	
		Vietnam sample	New Zealand sample
The use of persuasion knowledge Adapted from Boerman et al. (2014), Tutaj and van Reijmersdal (2012), and the literature on persuasion knowledge model (Friestad & Wright, 1994)	(1) While reading this advertisement, I thought about the meaning of the message about brand A carefully. (2) While reading this advertisement, I analyzed the message about brand A. (3) While reading this advertisement, I evaluated the message about brand A. (4) The aim of this advertisement is to influence my opinion. (5) The aim of this advertisement is to make me like brand A. (6) The aim of this advertisement is to sell an eco-friendly laundry liquid. (7) The aim of this advertisement is to stimulate the sales of an eco-friendly laundry liquid. (where "1" = "strongly disagree", "7" = "strongly agree")	.88	.83
Chronic regulatory focus Higgins et al. (2008)	<i>How often do these events actually occur or have occurred in your life?</i> (1) Compared to most people, are you typically unable to get what you want out of life? (2) Growing up, would you ever "cross the line" by doing things that your parents would not tolerate? (3) How often have you accomplished things that got you "psyched" to work even harder? (4) Did you get on your parents' nerves often when you were growing up? (5) How often did you obey rules and regulations that were established by your parents? (6) Growing up, did you ever act in ways that your parents thought were objectionable? (7) Do you often do well at different things that you try? (8) Not being careful enough has gotten me into trouble at times. (9) When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do. (10) I feel like I have made progress toward being successful in my life. (11) I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (where "1" = "Never or seldom", "5" = "Very often" <i>Promotion Pride:</i> items 1 ^R , 3, 7, 9 ^R , 10, & 11 ^R <i>Prevention Pride:</i> items 2 ^R , 4 ^R , 5, 6 ^R , & 8 ^R R: Reverse score)	Promotion pride: .73 Prevention pride: .68	Promotion pride: .74 Prevention pride: .79

Table 5.11. (continued)

Variable name and references	Items	Cronbach's alpha	
		Vietnam sample	New Zealand sample
Message effectiveness Adapted from Shao et al. (2004)	(1) If I were to need an eco-friendly laundry liquid, this advertisement would persuade me to purchase brand A. (2) My general reaction to this advertisement is positive. (3) Regardless of my personal preference, this advertisement is effective. (4) After looking at this advertisement, I feel that the image of brand A is strong. (5) This advertisement helps the image of brand A. (6) I find the phrase [green message] impactful. (7) I find the phrase [green message] effective in persuading me to purchase brand A. (where "1" = "strongly disagree", "7" = "strongly agree")	.88	.87
Message credibility MacKenzie and Lutz (1989b)	I found the message in the advertisement to be: (1) Unconvincing (1) to convincing (7) (2) Biased (1) to unbiased (7) (3) Unbelievable (1) to believable (7)	.83	.87

The average of items measuring message credibility, persuasion knowledge, and message effectiveness was calculated to create single evaluation measures for each construct. To create a measure of relative regulatory strength, this study again followed the procedure of Latimer et al. (2008), Cesario and Higgins (2008), and Keller and Bless (2006). First, the average of six items measuring promotion focus and the average of five items measuring prevention focus were calculated. Then, the prevention scores were subtracted from the promotion scores to create the relative regulatory strength score. Those who have a positive relative regulatory strength score have a stronger promotion-focused orientation and those who have a negative relative regulatory strength score have a stronger prevention-focused orientation.

5.4.4 Method of analysis

Before testing hypotheses 8 and 9, the potential impact of demographics and the relative regulatory strength on respondents' responses was examined using one-way ANOVA tests. Then, a moderation analysis based on Hayes (2017) was conducted for each sample to reexamining the moderating role of green message effectiveness in the relationship between the use of persuasion knowledge and green message credibility. To

investigate the relationship among relative regulatory strength, message types, and green message effectiveness (hypotheses 8 and 9), a regression analysis was performed for each sample. Finally, to test the effect of relative regulatory strength on participants' choice in the behavioral-choice experiment (voting task), logistic regressions were performed for each sample.

5.4.5 Results

ANOVA tests were conducted separately for each sample to determine whether gender influenced participants' responses, including the use of persuasion knowledge, the evaluation of message effectiveness and message credibility, and relative regulatory strength. In the Vietnamese sample, results showed that gender did not have an impact on the use of persuasion knowledge ($F(1,100) = 1.12, p > .05$), message effectiveness ($F(1,100) = .10, p > .05$), message credibility ($F(1,100) = .03, p > .05$), and relative regulatory strength ($F(1,100) = .11, p > .05$). Similarly, in the New Zealander sample, results showed that gender did not have an impact on the use of persuasion knowledge ($F(1,91) = .43, p > .05$), message effectiveness ($F(1,91) = .49, p > .05$), message credibility ($F(1,91) = 2.60, p > .05$), and relative regulatory strength ($F(1,91) = .96, p > .05$).

An ANOVA test was also conducted to determine whether nationality influenced participants' responses. Results showed that nationality did not influence the use of persuasion knowledge ($F(1, 193) = .45, p > .05$). However, nationality influenced message effectiveness, message credibility, and relative regulatory strength. Specifically, Vietnamese participants tended to perceive a higher level of message effectiveness and a higher level of message credibility than New Zealander participants ($F_{effectiveness}(1, 193) = 15.76, p < .05$; $F_{credibility}(1, 193) = 7.69, p < .05$). These results are consistent with findings in pretest 2, which revealed that Vietnamese are more likely to have higher evaluations of the effectiveness of messages used in the pretest than New Zealanders.

The ANOVA test on the difference between individuals' regulatory orientation in two countries revealed that Vietnamese participants were more likely to have a stronger prevention-focused orientation and New Zealander participants were more likely to have a stronger promotion-focused orientation ($F_{regulatory_focus}(1, 193) = 20.72, p < .05$). This result is consistent with previous research on regulatory orientation of people in

interdependent countries and independent countries, which indicated that those from an interdependent culture (such as Vietnam) are more likely to have a stronger prevention-focused orientation while those from an independent culture (such as New Zealand) are more likely to have a stronger promotion-focused orientation. Because nationality had an impact on respondents' responses, in the subsequent analysis, data of the two samples were analyzed separately.

The relationship among the use of persuasion knowledge, message effectiveness, and message credibility (hypotheses 2) was reexamined. A moderation analysis based on Hayes (2017) was conducted for each sample. Hayes's SPSS macro module version 3.0 was used (model 1 with 5,000 bootstrapped samples). The independent variable was the use of persuasion knowledge, the dependent variable was message credibility, and the moderator was message effectiveness.

For the Vietnamese sample, results revealed a marginal significant effect of the use of persuasion knowledge on message credibility (95% CI: -.00, .71), a significant main effect of message effectiveness on message credibility (95% CI: .23, .87) and a significant interaction between message effectiveness and the use of persuasion knowledge on message credibility (95% CI: .11, .35). The interaction effect was as follows:

- When perceived message effectiveness was low, there was a nonsignificant relationship between the use of persuasion knowledge and message credibility, $b = .10$, 95% CI: -.24, .45, $t = .58$, $p > .05$.
- At the mean value of message effectiveness (when message effectiveness is rated as being moderate), there was a significant positive relationship between the use of persuasion knowledge and message credibility, $b = .35$, 95% CI: -.00, .71, $t = 1.97$, $p = .05$.
- When message effectiveness was perceived as being high, there was a significant positive relationship between the use of persuasion knowledge and message credibility, $b = .60$, 95% CI: .19, 1.01, $t = 2.92$, $p < .05$.

These results are consistent with study 2, which supports H2a and rejects H2b. Study 3 generalizes and extends findings from an online panel of older Vietnamese adults to an in-person sample of students in Vietnam. To visualize the interaction effects, estimated effects produced by SPSS were graphed as in Figure 5.24 below.

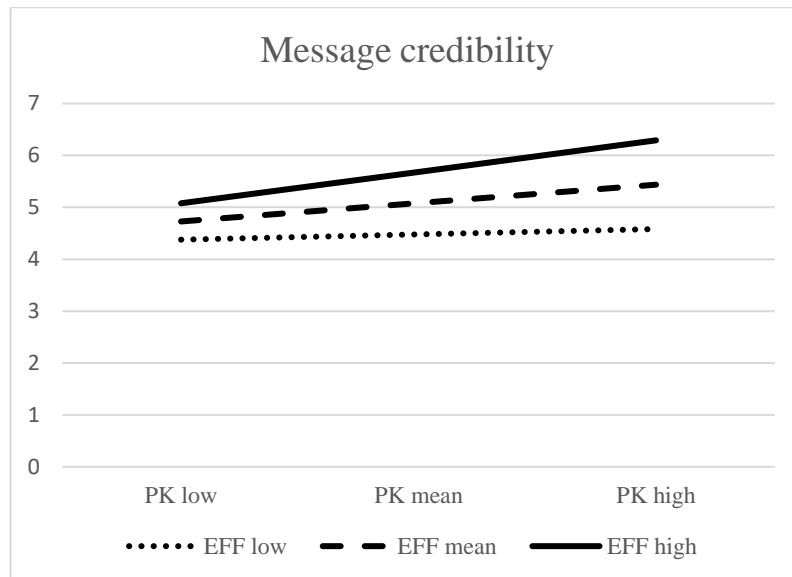


Figure 5.24. A visual representation of the moderating effect of message effectiveness for the Vietnamese sample

For the New Zealand sample, results revealed a significant effect of the use of persuasion knowledge on message credibility (95% CI: .28, .87), a significant main effect of message effectiveness on message credibility (95% CI: .20, .65) and a significant interaction between message effectiveness and the use of persuasion knowledge on message credibility (95% CI: .04, .52). The interaction effect was as follows:

- When message effectiveness was perceived as being low, there was a nonsignificant relationship between the use of persuasion knowledge and message credibility, $b = .23$, 95% CI: $-.13, .60$, $t = 1.30$, $p > .05$.
- At the mean value of message effectiveness, there was a significant positive relationship between the use of persuasion knowledge and message credibility, $b = .58$, 95% CI: $.28, .87$, $t = 3.89$, $p < .05$.
- When perceived message effectiveness was high, there was a significant positive relationship between the use of persuasion knowledge and message credibility, $b = .92$, 95% CI: $.46, 1.37$, $t = 4.01$, $p < .05$.

These results are again consistent with the results found in study 2, which support H2a and reject H2b, and extend and generalize findings to a new sample outside of Vietnam. To visualize the interaction effects, estimated effects produced by SPSS were graphed as in Figure 5.25 below.

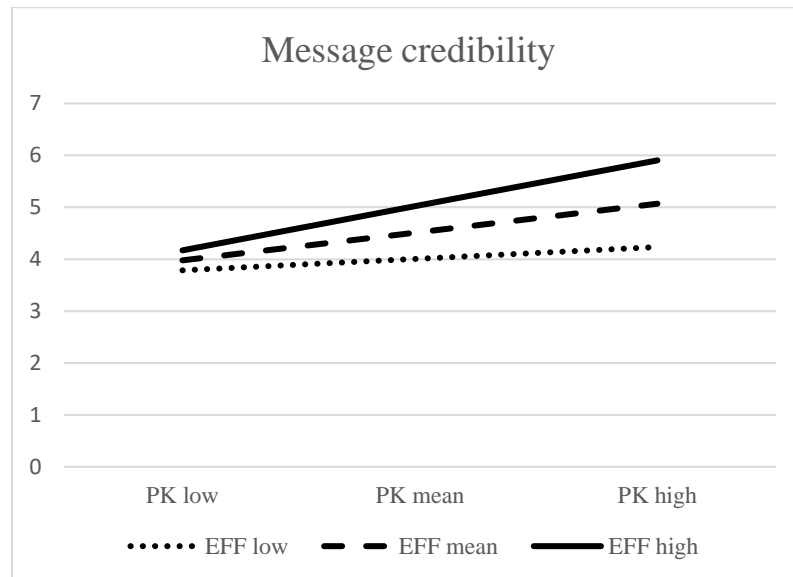


Figure 5.25. A visual representation of the moderating effect of message effectiveness for the New Zealander sample

Hypothesis 8 predicted that Vietnamese consumers (vs. New Zealand consumers) will perceive that prevention-framed green advertisements are more (less) effective. Hypothesis 9 predicted that Vietnamese consumers (vs. New Zealand consumers) will perceive that promotion-framed green advertisements are more (less) effective.

To examine the relationship among three constructs of relative regulatory strength, message types and message effectiveness, a regression analysis was conducted with the independent variables as relative regulatory strength, message types (prevention-framed message was coded -1 and promotion-framed message was coded 1), and an interaction term between relative regulatory strength and message type. The dependent variable was message effectiveness. Results showed that in both samples, regression coefficients of both regulatory strength and message type were not significant (see Table 5.12 and Table 5.13 below), indicating that relative regulatory strength and message type as main effects did not have an impact on message effectiveness in the presence of an interaction effect. The regression coefficients of the interaction in both samples, however, were significant ($B_{VN} = .42, t = 2.89, p < .05$; $B_{NZ} = .49, t = 2.5, p < .05$). The positive interaction terms in both samples indicated that when being exposed to a promotion-framed green message, participants with a stronger promotion-focused orientation were more likely to have a higher level of perceived message effectiveness than those with a stronger prevention-focused orientation. In contrast, when being exposed to a prevention-framed green message, participants with a

stronger prevention-focused orientation were more likely to have a higher perception of message effectiveness than those with a stronger promotion-focused orientation.

Table 5.12. Results of the regression analysis for the Vietnamese sample

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.23	.12		45.63	.00
Regulatory strength	-.02	.14	-.02	-.17	.87
Message type	.19	.12	.17	1.62	.11
Interaction	.42	.14	.32	2.89	.00

Table 5.13. Results of the regression analysis for the New Zealander sample

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.58	.13		36.60	.00
Regulatory strength	.29	.19	.16	1.49	.14
Message type	-.20	.16	-.17	-1.62	.11
Interaction	.49	.19	.27	2.51	.01

To confirm the interaction in two samples, data from the additional behavioral-choice experiment (voting task) were used. Logistic regressions were performed with the independent variable as relative regulatory strength and the dependent variable as participants' choice. Those who voted for the prevention-framed advertisement were coded -1 and those who voted for the promotion-framed advertisement were coded 1. A significant regression equation was found in each sample ($\chi^2_{VN}(1) = 14.45, p < .05$; $\chi^2_{NZ}(1) = 10.20, p < .05$) with Nagelkerke R^2_{VN} of .18 and Nagelkerke $R^2_{NZ} = .14$. The parameter estimates of the two samples were significant and positive (see Table 5.14 and Table 5.15 below), indicating that participants with a stronger promotion-focused orientation were more likely to think promotion-framed messages are more effective, whereas those with a stronger prevention-focused orientation were more likely to think prevention-framed messages are more effective. These results are consistent with the results found in the main experiment.

Table 5.14. Results of the logistic regression analysis for the Vietnamese sample

	B	S.E.	Wald	df	Sig.	Exp(B)
Regulatory strength	1.18	.35	11.09	1	.00	3.25
Constant	.34	.23	2.23	1	.14	1.41

Table 5.15. Results of the logistic regression analysis for the New Zealander sample

	B	S.E.	Wald	df	Sig.	Exp(B)
Regulatory strength	1.11	.38	8.6	1	.00	3.04
Constant	-.13	.23	.34	1	.56	.88

5.4.6 Summary of the results of study 3

Study 3 was conducted to serve two purposes: (1) to extend and generalize results related to hypothesis 2 in study 2 (the moderating effect of message effectiveness on the relationship between the use of persuasion knowledge and message credibility); and (2) to investigate whether consumers in an interdependent culture (Vietnam) and those in an independent culture (New Zealand) evaluate the message effectiveness of a promotion-framed message and a prevention-framed message differently (main purpose).

First, the results of this study confirm that message effectiveness moderates the effect of persuasion knowledge on message credibility, among both New Zealander and Vietnamese respondents. In line with the results of study 2, results of study 3 only show the interaction effect between persuasion knowledge and message effectiveness when message effectiveness is perceived as being moderate or high. This confirms, among a new sample of Vietnamese respondents and among New Zealanders, that when message effectiveness is moderate or high, consumers who use more persuasion knowledge are more likely to perceive a higher level of message credibility than those who used less persuasion knowledge to evaluate a green advertisement. This effect in study 3 occurs independently of cognitive resource manipulations as in study 2. When perceived message effectiveness is low, the interaction does not exist, suggesting that there is no difference in the perceived message credibility between consumers who use more persuasion knowledge and those who use less persuasion knowledge when message effectiveness is rated low.

Second, in line with previous studies on regulatory orientation of people in interdependent countries and those in independent countries, this study confirmed that consumers from an interdependent culture (Vietnam) are more likely to have a stronger

prevention-focused orientation, and those from an independent culture (New Zealand) are more likely to have a stronger promotion-focused orientation. From data of two samples in two countries, the analysis reveals that when a green message in an advertisement of eco-friendly products matches participants' dominant regulatory focus, it will be perceived as being more effective than a message which does not match participants' dominant regulatory focus. Specifically, when being exposed to a promotion-framed advertisement of an eco-friendly product, participants with a stronger promotion-focused orientation are more likely to perceive a higher level of message effectiveness than those with a stronger prevention-focused orientation. Similarly, when being exposed to a prevention-framed advertisement of an eco-friendly product, participants with a stronger prevention-focused orientation are more likely to perceive a higher level of message effectiveness than those with a stronger promotion-focused orientation. These results suggest that companies should use promotion-framed green messages when promoting their eco-friendly products to consumers in an independent culture. In contrast, to promote eco-friendly products to those in an interdependent culture, companies should use prevention-framed green messages.

In addition to the findings mentioned above, study 3 also reveals that when being exposed to the same advertisement of eco-friendly products, Vietnamese consumers are more likely to have a higher evaluation on message effectiveness than New Zealanders. Further discussions of this finding and the previous findings will be presented in the final chapter.

5.5 Conclusion

This chapter presented three studies on how consumers use their preexisting knowledge (persuasion knowledge, topic knowledge, and brand knowledge) to evaluate the credibility of green advertisements and factors which influence this evaluation. Results from these studies supported hypotheses 1, 2a, 3a, 4, 5, 6, 8, 9 and rejected hypotheses 2b, 3b, and 7 (see Figure 5.26 and Figure 5.27 below).

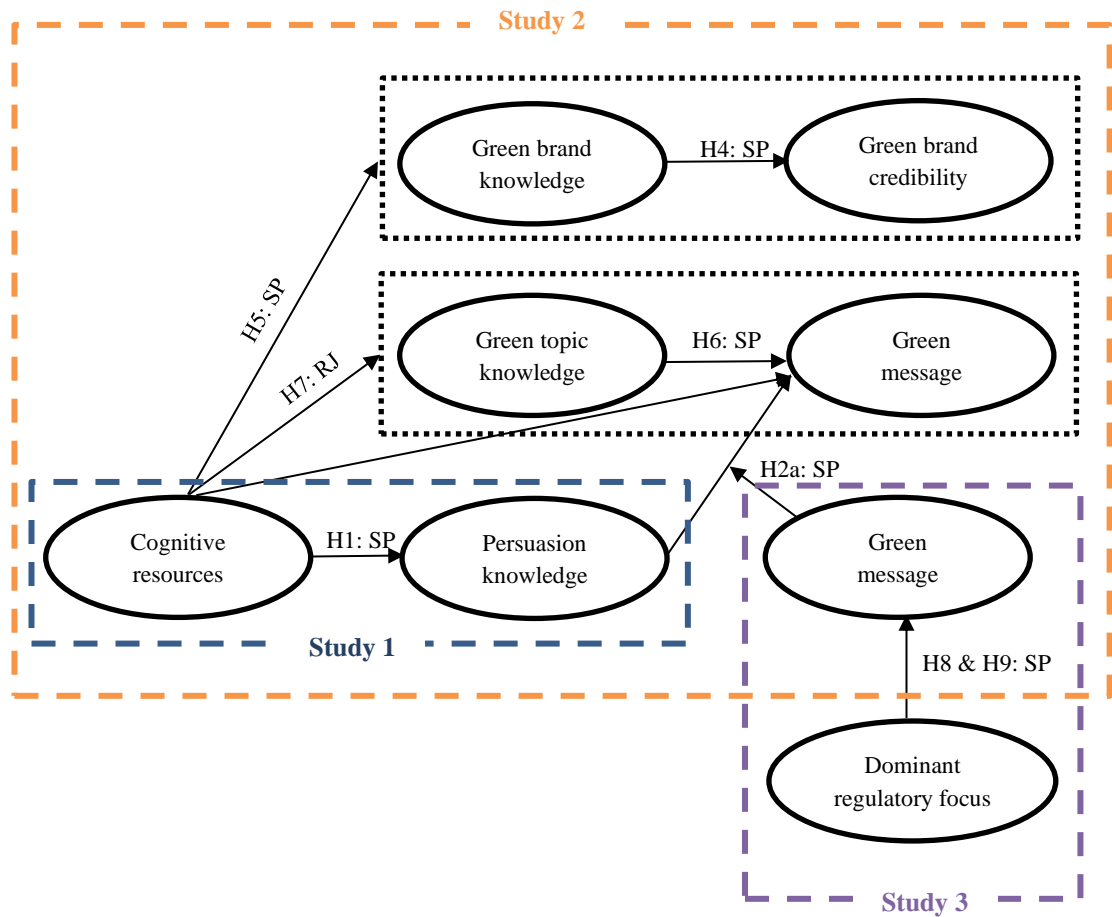
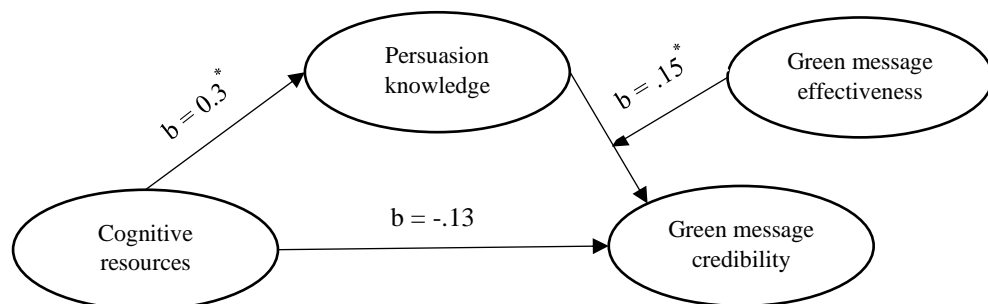


Figure 5.26. An illustration of results of hypothesis testing*

* SP: supported, RJ: rejected; H3a was supported and illustrated in Figure 5.27



Index of moderated mediation = .04 (95% CI: .01, .09); the moderated mediation effect is significant when green message effectiveness is moderate or high.

*. Significant at the 0.05 level

Figure 5.27. An illustration of results of hypothesis 3

To be specific, there is statistical evidence that when cognitive resources are unconstrained, consumers use a higher level of persuasion knowledge than when their cognitive resources are constrained (hypothesis 1, supported). The effect of the use of persuasion knowledge on green message credibility is moderated by green message effectiveness (hypothesis 2). However, this effect exists only when green message effectiveness is high or moderate (hypothesis 2a, supported) and it disappears when green message effectiveness is low (hypothesis 2b, rejected). Cognitive resources have a conditional indirect effect on green message credibility through the use of persuasion knowledge, conditioned on green message effectiveness (hypothesis 3). If green message effectiveness is high, cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to perceive a higher level of green message credibility, as a result of using more persuasion knowledge (hypothesis 3a, supported). However, this conditional indirect effect disappears when green message effectiveness is low (hypothesis 3b, rejected).

The analysis also shows evidence that consumers who have more green brand knowledge are more likely to demonstrate a higher perception of green brand credibility (hypothesis 4, supported). Cognitively constrained consumers (vs. cognitively unconstrained consumers) are more likely to base their green brand credibility evaluation on their green brand knowledge (hypothesis 5, supported). In terms of topic knowledge, there is evidence that consumers who have more green topic knowledge are more likely to demonstrate a higher perception of green message credibility (hypothesis 6, supported). However, in contrast to prediction, cognitively constrained consumers and cognitively unconstrained consumers base their green message credibility evaluation on their green topic knowledge in the same manner (hypothesis 7, rejected).

Finally, there is statistical evidence that when a green message in an advertisement of eco-friendly products matches participants' dominant regulatory focus, it is perceived as being more effective than a message which does not match participants' dominant regulatory focus. To be specific, consumers from Vietnam (an interdependent culture where prevention-focused orientation is dominant) perceive that prevention-framed green advertisements are more effective (hypothesis 8, supported). In contrast, consumers from New Zealand (an independent culture where promotion-focused orientation is dominant) perceive that promotion-framed green advertisements are more effective (hypothesis 9, supported).

The next chapter of this thesis will discuss these findings in detail, present contributions of these findings to theory, methodology, and practice. Limitations and future research directions will also be discussed.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Introduction

The previous five chapters have introduced the focus of the research problem of this thesis (Chapter 1), reviewed the relevant literature of the research focus (Chapter 2), outlined research methodology used to explore the framework (Chapter 3), and presented the procedure and results of pretests and studies conducted to address the research questions (Chapter 4 and Chapter 5). This chapter will conclude the thesis by revisiting the research purpose and aims (section 6.2), discussing research findings of the three main studies (section 6.3), and presenting the contributions of this thesis to theory (section 6.4), methodology (section 6.5), and practice (section 6.6). Finally, limitations and future research directions will be discussed (section 6.7) before a final conclusion (section 6.8) is made.

6.2 Overall research purpose

The purpose of this thesis is to develop a framework to explain how consumers use their existing knowledge, not only persuasion knowledge, but also agent knowledge and topic knowledge, to evaluate the credibility of advertisements of eco-friendly products and the factors which can influence this evaluation. Ultimately, this framework explores the impact of individuals' regulatory orientation on evaluations of consumers in an interdependent culture and an independent culture to shed light on the influence of cultural differences on consumer evaluations (see the framework in Figure 2.3, Chapter 2, section 2.11, page 47). Research in this thesis helps address two research questions, as posed in Chapter 1:

RQ1: How do consumers use their existing knowledge (persuasion knowledge, agent knowledge, and topic knowledge) to evaluate green advertisement credibility?

RQ2: How and when are advertisements of green products perceived by consumers in different cultures (independent culture vs. interdependent culture) as being effective and credible?

An overview of how these research questions have been explored through three studies in this thesis is presented in Figure 6.1 below. The illustration of the framework with the results of hypothesis testing is presented on page 137 (Figures 5.26 and 5.27).

Study 1

Summary from the literature: Consumers use persuasion knowledge to judge the credibility of an advertisement and the use of persuasion knowledge needs intensive processing.

Question: To use more persuasion knowledge, do consumers need more cognitive resources?

Key findings: Cognitive resources influence the use of persuasion knowledge. When cognitive resources are unconstrained, respondents use more persuasion knowledge to evaluate a green message than when their cognitive resources are constrained (H1 was supported).



Study 2

Summary from the literature:

+ When being exposed to an advertisement, consumers not only use persuasion knowledge to judge the credibility of that advertisement, but also use topic knowledge and brand knowledge. The use of each type of knowledge may depend on consumers' cognitive resources.

+ The use of persuasion knowledge does not always lead to negative evaluation. It could depend on the perceived message effectiveness.

Questions: At different levels of cognitive resources, when being exposed to advertisements of eco-friendly products, how do consumers use their existing knowledge (persuasion knowledge, topic knowledge, and brand knowledge) to evaluate green message credibility and green brand credibility? What is the role of message effectiveness in the evaluation of message credibility?

Key findings:

+ Message effectiveness moderates the relationship between persuasion knowledge and message credibility. This moderating effect appears when message effectiveness is moderate or high (H2a was supported) and disappears when message effectiveness is low (H2b was rejected).

+ Cognitive resources have a conditional indirect effect on message credibility through the use of persuasion knowledge, conditioned on message effectiveness. When message effectiveness is moderate or high, cognitively unconstrained consumers are more likely to perceive a higher level of message credibility, as a result of using more persuasion knowledge. In contrast, cognitively constrained consumers are more likely to perceive a lower level of message credibility, as a result of using less persuasion knowledge (H3a was supported). This conditional indirect effect disappears when message effectiveness is low (H3b was rejected).

+ The greater brand knowledge consumers have, the higher brand credibility they perceive (H4 was supported). When cognitive resources are constrained, consumers are more likely to base their brand credibility evaluation on their brand knowledge than when their cognitive resources are unconstrained (H5 was supported).

+ The greater topic knowledge consumers have, the higher message credibility they perceive (H6 was supported). Regardless of whether their cognitive resources are constrained or unconstrained, consumers based their message credibility evaluation on their topic knowledge similarly (H7 was rejected).

Study 3

Summary from the literature:

- + People from an independent culture (such as New Zealand) are more likely to have a stronger promotion-focused orientation and those from an interdependent culture (such as Vietnam) are more likely to have a stronger prevention-focused orientation. This difference in regulatory orientation could influence the level of perceived effectiveness when consumers are exposed to an advertisement of eco-friendly products.
- + Advertisements of eco-friendly products create contextual thoughts (e.g. thoughts related to prevention representations such as safety, protectiveness) which could influence consumers' perceived effectiveness.

Questions: How might differences in individuals' regulatory orientation influence the perceived message effectiveness of green advertisements? Will framing advertising messages differently (promotion-framed vs. prevention-framed) help increase the perceived message effectiveness of consumers from different cultures (independent culture vs. interdependent culture)?

Key findings: When framing a green message so that it matches participants' dominant regulatory focus, it will be perceived as being more effective than a message which is framed so that it does not match participants' dominant regulatory focus, regardless of participants' culture (H8 and H9 were supported).

Figure 6.1. Overview of three studies in the thesis

6.3 Discussion of the research findings

The persuasion knowledge model of Friestad and Wright (1994) proposes that when being exposed to an advertisement, consumers will use existing knowledge (persuasion knowledge, topic knowledge, and agent knowledge) to evaluate that advertisement. Results of study 1 and study 2 confirm this proposition in the context of green advertising. In particular, consumers who see an advertisement for eco-friendly products use their persuasion knowledge and knowledge about green products (topic knowledge) to judge the credibility of the advertising message. They also use brand knowledge (or agent knowledge) to evaluate the credibility of the green brand. However, findings of study 1 and study 2 reveal more insights into how consumers use their knowledge.

Results of study 1 and study 2 show that consumers do not always use the three types of knowledge in the same manner. Specifically, what types of knowledge consumers mainly use to evaluate a green advertisement depends on consumers' cognitive resources while they see the advertisement. When consumers have less

cognitive resources (e.g. they are busy feeding their kids while looking at an advertisement), consumers are less likely to have the ability to process the information intensively. Thus, to form evaluations of message credibility, they recall less knowledge about different tactics advertisers utilize to persuade consumers to buy a product as well as their current goals (persuasion knowledge). Besides, without the ability to process information deeply, it is difficult for consumers to think about other important factors impacting brand credibility (e.g. the perceived fit between the social cause and the brand, the socially related motives that the brand is trying to deliver). Instead, consumers have to rely more on heuristic shortcuts such as brand knowledge (e.g. familiarity, product ranges, etc.) to evaluate brand credibility.

In contrast, when consumers have more cognitive resources (e.g. they are not distracted by other tasks and can concentrate on reading or viewing an advertisement), they are more likely to have the ability to process information more deeply. To form evaluations of how credible the message in a particular advertisement is, they recall more persuasion knowledge and think much about tactics advertisers use to persuade them to buy a product. Because they process information carefully, they have a chance to think about other influential factors when evaluating the credibility of the advertised brand. In other words, they rely less on brand knowledge to evaluate brand credibility. Regarding topic knowledge, consumers recall their knowledge about eco-friendly products and their impacts on the environment to evaluate message credibility in the same manner as when their cognitive resources are constrained.

In summary, to evaluate message credibility, consumers use both persuasion knowledge and topic knowledge to form evaluation. They use more persuasion knowledge when their cognitive resources are unconstrained than when their cognitive resources are constrained. They use topic knowledge in the same manner in two cases. In regards to brand credibility, consumers use brand knowledge to form evaluation. They use more brand knowledge when their cognitive resources are constrained than when their cognitive resources are unconstrained.

The results on the use of persuasion knowledge and brand knowledge above are in line with previous literature on the elaboration likelihood model (Petty & Cacioppo, 1986), which suggests that when cognitive resources are unconstrained, people use extensive elaboration to analyze the information they have received. When cognitive

resources are constrained, they tend to rely on cognitive shortcuts (e.g. brand familiarity) to assess the information. However, the results on the use of topic knowledge are unpredicted. This thesis proposed that cognitively unconstrained consumers (vs. cognitively constrained consumers) are more likely to base their message credibility evaluation on their topic knowledge because cognitively unconstrained consumers are able to use extensive elaboration to analyze all details in the advertisement, and the topic being advertised (eco-friendly products) is an important element of these details. In contrast, cognitively constrained consumers may not read and analyze the advertisement carefully and as a result, they may be unable to recall their knowledge about the topic mentioned in the advertisement. Results of study 2 do not support this proposition and instead, reveal that regardless of the availability of cognitive resources, consumers use knowledge about the topic being discussed to evaluate message credibility in the same manner. This finding suggests that topic knowledge always hovers in readiness to help consumers form evaluations and consumers do not have to elaborate intensively to recall this knowledge. This means when being exposed to an advertisement of eco-friendly products, consumers automatically think about the impact of the consumption of those products on the environmental protection, regardless of whether they are busy, distracted or mentally exhausted, or not.

Previous research reveals that green advertisements not only make consumers think about the conventional functions of the advertised products (e.g. to help clean dishes or clothes), but also encourages consumers to think about the influence of these products on the environment (Bullard & Manchanda, 2013). The thoughts of the impacts of these products on the environment could be evoked when consumers have more cognitive resources and therefore, are more in-depth, such as how phosphate-free detergents could prevent algae blooms and consequently, help marine animals who seek light and oxygen. These thoughts could also be evoked when consumers have less cognitive resources, and consequently, are superficial, such as using detergents without phosphate could help the protection of the environment. Either way, these thoughts will automatically pop up in consumers' mind and help consumers form evaluations of message effectiveness whenever they read or view advertisements of eco-friendly products.

Results of study 2 also reveal more insight into how persuasion knowledge influences consumers' evaluations. In particular, results suggest that the impact of persuasion knowledge on perceived message credibility depends on how effective the advertising message is. When being exposed to a green advertisement with moderate or high effectiveness, those who use more persuasion knowledge are likely to perceive a higher level of message credibility, whereas those who use less persuasion knowledge are likely to perceive a lower level of message credibility. These results are not consistent with arguments in previous research which state that the use of persuasion knowledge leads to negative evaluations (e.g. Boyer et al., 2015; Chan Yun, 2009; Zhou et al., 2015). However, these results are consistent with what is presented in the persuasion knowledge model of Friestad and Wright (1994) and in several recent studies which argue that the use of persuasion knowledge could lead to positive evaluations (e.g. Dens et al., 2018; Isaac & Grayson, 2017). These results are justifiable for two reasons.

Firstly, from the original model of persuasion knowledge (Friestad & Wright, 1994), there is evidence that the use of persuasion knowledge could lead to both positive and negative evaluations. In this model, the authors emphasize that consumers use persuasion knowledge to form evaluations of persuasive attempts (in this case, advertisements). These evaluations could be positive or negative, depending on various factors, such as how consumers perceive the tactics advertisers use to persuade consumers, what goals advertisers try to achieve when they advertise a particular product, and what goals consumers want to achieve, etc. (Friestad & Wright, 1994). The authors of the persuasion knowledge model do not emphasize that the use of persuasion knowledge will automatically lead to negative responses and instead, they suggest that the use of persuasion knowledge will help consumers interpret and cope with a particular advertisement. Therefore, it is reasonable to expect that the use of persuasion knowledge can form positive evaluations. This prediction is confirmed by results of study 2, which suggest that the use of persuasion knowledge does lead to positive evaluations when the message in the green advertisement is perceived to be effective. Indeed, the persuasion knowledge model states that perceived effectiveness plays a significant role in determining the overall competence of the advertisement (Friestad & Wright, 1994). If consumers are exposed to an effective advertisement and they use more persuasion knowledge to form judgements, it is likely that they understand the

meaningful features of the advertisement and thus, evaluate the advertisement more favorably.

Secondly, the way previous researchers view persuasion knowledge could lead to bias when determining the actual role of persuasion knowledge on advertisement evaluations. In previous research on the use of persuasion knowledge, researchers often consider persuasion knowledge as a defense mechanism which helps consumers guard against persuasion attempts and advertisements are often perceived as something consumers have to beware of. This is why in such research, negative words such as perceived deception, doubt, and suspicion are often associated with the activation of persuasion knowledge when consumers see an advertisement (e.g. Hwang & Zhang, 2018; Moore & Rodgers, 2005; Zhou et al., 2015). In addition, to measure the use of persuasion knowledge, researchers often use items which consist of negative terms such as “manipulate” (“The advertiser tries to manipulate the audience in ways that I don't like”), “tricks” (“I notice tricks in this advertisement to promote the product”) (e.g. Hwang & Zhang, 2018; Zhou et al., 2015). These terms could mislead respondents because they make respondents think about advertisements unfavorably. If in those studies, the use of persuasion knowledge had been measured by more neutral terms and respondents were asked questions such as “The advertiser tries to persuade the audience in ways that I don't like” or “I notice tactics in this advertisement to promote the product,” it is possible that respondents would have had a different view on the advertisements used in those studies and consequently, had given different answers.

In this thesis, in order to mitigate the possible impact of negative wording on consumer responses, the use of persuasion knowledge was measured by items which consist of neutral words such as “influence” (“The aim of this advertisement is to influence my opinion”; see the measurement of the use of persuasion knowledge in study 2 – section 5.3.3.3 and study 3 – section 5.4.3.3). The use of these neutral words might be one of the reasons why results found in this thesis differ from those in previous research.

The regulatory focus theory and regulatory fit theory suggest that individuals with a stronger promotion-focused orientation are more responsive to gain, achievement, aspiration, and enjoyment. Thus, when being exposed to a message which emphasizes these attributes, promotion-focused individuals are likely to have a “just-feels-right”

sensation. In contrast, individuals with a stronger prevention-focused orientation are more responsive to loss, responsibility, safety, and security; and thus, when being exposed to a message which emphasizes such attributes, prevention-focused individuals are again more likely to experience a “just-feels-right” sensation (Higgins, 1996, 2000). The “just-feels-right” sensation evoked by the perceived fit between individuals’ predominant regulatory orientation and the message leads to favorable responses to the message (Cesario et al., 2004). Results in study 3 support these theories and provide further evidence that this fit sensation can increase perceived message effectiveness, and consequently, increase perceived message credibility for sustainable product advertisements in particular.

Specifically, when being exposed to a promotion-framed advertisement of sustainable products, consumers with a stronger promotion-focused orientation perceive a higher level of message effectiveness and as a result, perceive a higher level of message credibility than those with a stronger prevention-focused orientation. Similarly, when being exposed to a prevention-framed advertisement of sustainable products, consumers with a stronger prevention-focused orientation perceive a higher level of message effectiveness and as a result, perceive a higher level of message credibility than those with a stronger promotion-focused orientation. These results were confirmed in two countries with different cultures: Vietnam (an interdependent culture) and New Zealand (an independent culture).

These results are not only consistent with the majority of research conducted based on the regulatory focus and regulatory fit theory (Higgins, 1996, 2000), but also consistent with the schema congruity theory of Mandler (1982), which states that when individuals perceive a specific situation which is schema-congruent with their prior knowledge structure, they are likely to enjoy the familiarity and comfort of an expected situation, which in turn leads to more favorable responses. In this study, individuals who have a stronger promotion-focused orientation seem to enjoy the comfort of processing promotion-frame green messages more than that of processing prevention-framed green messages. Thus, they are more likely to perceive a higher level of message effectiveness when being exposed to promotion-framed advertisements than when being exposed to prevention-framed advertisements. In contrast, those who have a stronger prevention-focused orientation seem to enjoy the comfort of processing prevention-framed green messages. Thus, they are more likely to perceive a higher level of message

effectiveness when being exposed to prevention-framed advertisements than when being exposed to promotion-framed advertisements.

However, these results are not in line with recent work in the context of green advertisement. According to some studies, green advertisements induce contextual thoughts (e.g. thoughts about safety or protectiveness or thoughts about global nature) and these thoughts could influence individuals' responses (e.g. Bullard & Manchanda, 2013; Kareklas et al., 2012). In contrast to these studies, findings of this thesis do not show the influence of green contextual thoughts, but lend additional confidence to the impact of chronic regulatory orientation and regulatory fit on individuals' responses to green advertisements. Study respondents in this thesis had higher message effectiveness perceptions for messages that align with their chronic regulatory orientation, regardless of their culture.

This contradiction may be explained by taking into consideration the way regulatory orientation was measured in previous studies. While in previous research, researchers manipulated regulatory orientation and measured participants' responses, in this thesis, chronic regulatory orientation was measured. For example, in Kareklas et al. (2012)'s study, the authors manipulated participants' regulatory orientation by asking them to read different texts before showing them the advertisement. Participants' promotion-focused orientation was activated by a description of how organic farming improves the environment, whereas participants' prevention-focused orientation was activated by a description of how organic farming prevents the environment from harmful chemicals. Although this manipulation technique successfully activates the desired individuals' regulatory orientation, there is debate about whether manipulating regulatory orientation increases or decreases the real effect of chronic regulatory orientation on individuals' responses. For example, in research on the effects of regulatory orientation manipulation, Haws et al. (2012) have shown that there is an interaction between chronic promotion focus and manipulated promotion focus, and this interaction accentuates the effect of regulatory focus on participants' responses. This evidence suggests that different ways to measure regulatory orientation (measuring chronic regulatory orientation vs. manipulating regulatory orientation) can influence participants' responses.

In addition to findings associated with the main research purpose of this thesis, two additional findings are worth mentioning.

First, results of both pretest 2 and study 3 suggest that when being exposed to the same advertisement of an eco-friendly product, Vietnamese perceive a higher level of message effectiveness than New Zealanders. There are two possible reasons for this difference. First, it appears that compared to New Zealanders, Vietnamese consumers are newer to green products and green advertisements (Hai & Mai, 2013) and therefore, it is possible that Vietnamese find green advertisements more interesting. From the research of the author, most companies which produce eco-friendly products in Vietnam are young (established from the 2000s), whereas those in New Zealand are older (established from the 1900s) (see Table 2.5 and Table 2.7, section 2.13). Thus, it is reasonable to think that New Zealanders are more familiar with sustainable products, green advertisements, and the way companies use green features to persuade consumers to buy eco-friendly products than Vietnamese. When seeing a green advertisement, New Zealanders may not have any special thought about the advertisement and they may think “Well, this is another green advertisement. I have seen so many similar advertisements”, whereas Vietnamese may find the advertisement more novel. According to Rik et al. (2002) and Reid et al. (1998), an advertisement which is unique and different from other ads can evoke positive effects on consumers and these positive effects will decrease when consumers become familiar with the advertisement. Therefore, it is possible that because New Zealanders are more familiar with advertisements of sustainable products than Vietnamese, New Zealanders may not perceive a particular green advertisement to be as effective as Vietnamese do.

Second, in recent years environmental pollution has become a growing issue in Vietnam (Hai & Mai, 2013). As a result, people in Vietnam may have more positive responses to advertisements which encourage the consumption of sustainable products and help protect the environment than those in New Zealand, where environmental pollution is not as severe as in Vietnam. According to a report of the World Health Organization, while New Zealand is one of the nations with the lowest air pollution, Vietnam is one of the nations with the highest air pollution (WHO, 2016). In addition, the impacts of environmental change due to human’s activities are more severe in developing countries (such as Vietnam) than in developed countries (such as New Zealand) (Nielsen, 2018c). Vietnamese thus can more easily see the negative influence

of their daily activities to the environment (e.g. air pollution, water pollution, soil contamination, etc.). So, when seeing an advertisement which helps boost the consumption of eco-friendly products, Vietnamese may be more likely to evoke favorable thoughts about the advertisement than New Zealanders. This does not mean that New Zealanders do not care much about the environment and the consumption of eco-friendly products. But because Vietnamese have already seen the severe deterioration of the environment where they live, they may be more sensitive to the topic of protecting the environment and may show more positive evaluations of green advertisements than New Zealanders.

Results of study 2 also suggest that Vietnamese with a higher level of education or a higher level of income are more likely to know more about eco-friendly products and their impacts on the environment. This suggestion is in line with previous research on characteristics of sustainable products' buyers in different countries (e.g. Abdul-Wahab & Abdo, 2010; Aminrad et al., 2011; Hai & Mai, 2013; Zhang, 2010). As mentioned in chapter 2, sustainable products and their advertisements often contain scientific or potentially complex phrases which may cause some difficulties for people to understand. People with a higher educational level are more likely to read more books, have access to more resources and the chance that they encounter those scientific phrases or are more aware of the intended meaning of even vague sustainable claims may be higher than those with a lower level of education. Therefore, well-educated people are more likely to have sufficient knowledge to understand the consequence of human's activities on the environment, their responsibility for the environment, and how sustainable products can help reduce the negative impacts on the environment than uneducated people. In addition, because sustainable products are often more expensive than conventional products, sustainable products may be more affordable and can become an option when choosing a particular product for people with higher incomes than for those with lower incomes.

6.4 Theoretical contributions

This thesis offers four contributions to the literature on the persuasion knowledge model, evaluation of credibility, regulatory focus and regulatory fit theory in the context of green advertising.

First, as mentioned in the literature review, there is much research which solely focuses on the negative effects of the use of persuasion knowledge. This thesis makes an important theoretical contribution to the literature on the persuasion knowledge model and evaluation of credibility. Taken together, the studies in this thesis document the positive effects of the use of persuasion knowledge on message credibility evaluation when consumers see an effective green advertisement. When consumers recognize persuasion tactics in an advertisement and realize that they are being persuaded to buy a product, they do not always evoke negative thoughts such as increased skepticism and greater perceived deception. Recognizing persuasion tactics does not always lead to unfavorable evaluations such as a lower level of credibility evaluation. One factor overlooked in prior studies of persuasion knowledge activation is perceived message effectiveness. According to the results of this thesis, if consumers think an advertisement is effective, they will have a higher perception of credibility. When investigating how consumers evaluate message credibility in the context of green advertisement, the inclusion of message effectiveness is especially vital because message effectiveness has a special role in consumers' evaluation process for green ads. Other than the purpose of boosting the consumption of the advertised products, green advertisements convey another meaningful purpose: consuming these products will help protect the environment or make the environment better. When consumers see an advertisement of an eco-friendly product which delivers an effective message and they use persuasion knowledge to evaluate the advertisement, they are likely to think about the social motive of the advertisement (to help protect the environment or to make the environment better). If an advertisement is effective and it conveys a good intention, consumers can have more positive evaluations on the advertisement such as a higher credibility evaluation.

Second, this thesis further contributes to the literature of the persuasion knowledge model and the evaluation of credibility by incorporating three types of knowledge — persuasion knowledge, topic knowledge, and brand knowledge — in a framework to investigate the evaluation of credibility. Since the introduction of the persuasion knowledge model (Friestad & Wright, 1994), there is much research on the use of persuasion knowledge in consumers' evaluations. Although the persuasion knowledge model indicates that consumers recall these three types of knowledge when they see an advertisement, most research applying this model merely investigates the

role of persuasion knowledge. There is a lack of research on the integration of the three types of knowledge, especially on how consumers recall these types of knowledge in different conditions such as when their cognitive resources are constrained or unconstrained.

This thesis makes a significant contribution to the literature by revealing that consumers recall these three types of knowledge differently when their cognitive resources vary. Specifically, to evaluate message credibility, consumers recall both persuasion knowledge and topic knowledge to form evaluation. They use more persuasion knowledge when their cognitive resources are unconstrained than when their cognitive resources are constrained. They use topic knowledge in the same manner, regardless of whether their cognitive resources are constrained or unconstrained. To evaluate brand credibility, consumers recall brand knowledge to form evaluation. However, they use more brand knowledge when their cognitive resources are constrained than when their cognitive resources are unconstrained.

Third, this thesis provides further evidence about the effects of regulatory focus (Higgins, 1996) and regulatory fit theory (Higgins, 2000) in the green advertisement context. Previous research showed that advertisements of eco-friendly products could induce contextual thoughts (e.g. thoughts about safety or protectiveness or thoughts about global nature) and these thoughts could influence consumer responses (Bullard & Manchanda, 2013; Kareklas et al., 2012). However, this thesis reveals that depending on how researchers measure consumers' regulatory orientation (using priming technique vs. measuring chronic regulatory orientation), green contextual thoughts may or may not influence consumer responses. Findings in this thesis lend additional confidence to the impact of chronic regulatory orientation and regulatory fit on consumer responses to green advertisements. Specifically, consumers perceive a higher level of message effectiveness when the advertised message is framed in accordance with consumers' chronic regulatory orientation.

Finally, research in the present thesis adds to the literature of factors impacting green advertisement effectiveness in interdependent cultures by analyzing data from an interdependent culture (Vietnam) and comparing this data with those from an independent culture (New Zealand). Cultural differences might have significant impacts on individuals' responses (Briley et al., 2000) and the majority of studies in this field

have focused on independent cultures. Findings of this thesis extend the literature by showing that the influence of chronic regulatory orientation, regulatory fit, and contextual thoughts induced by green advertisements on individuals' responses are similar in both cultures. To be specific, in both cultures, those who have a stronger promotion-focused orientation are likely to perceive a higher level of effectiveness when being exposed to a promotion-framed green advertisement. Those who have a stronger prevention-focused orientation are likely to perceive a higher level of effectiveness when being exposed to a prevention-framed green advertisement. This study also confirms that Vietnamese consumers tend to have a higher prevention-focused orientation, helping future studies about Vietnamese shoppers predict and explain the potential impact of differences in regulatory orientation on various responses from Vietnamese consumers.

6.5 Methodological contributions

In addition to the theoretical contributions presented above, this thesis offers three methodological contributions.

First, the use of individuals' chronic regulatory orientation scale in this thesis helps mitigate an important, influential factor which many previous studies neglected: manipulated regulatory orientation. While previous research has examined the influence of regulatory fit on consumer responses, the majority of research did not measure individuals' chronic regulatory orientation and instead, manipulated regulatory orientation using situational primes. For example, Keller and Bless (2006) activated promotion-focused orientation by asking participants to solve multiple questions and for each right answer, participants would receive one point. Participants were informed that the strategy to get a high score was to answer as many questions as possible. This manipulation method made participants think more about the points they could get for each right answer, emphasizing the presence of gains. In contrast, the researchers activated prevention-focus orientation by informing participants that for each wrong answer or each missing item, participants' points would be deducted by one point and the strategy to get a high score was to avoid errors. Informing participants of this strategy made them think more about the points they could lose by giving a wrong answer, emphasizing the presence of loss. Kirmani and Zhu (2007) manipulated regulatory orientation by asking one group of participants to think about their aspirations to activate promotion-focused orientation and asking the other group to think

about their responsibilities to activate prevention-focused orientation. As mentioned in the discussion section, there is evidence that chronic regulatory orientation and manipulated regulatory orientation could interact and this interaction could distort the real effects of regulatory orientation on responses. This study mitigated an influential factor (manipulated regulatory orientation) to draw its conclusions. As a result, findings of this study lend additional confidence to the impact of chronic regulatory orientation and regulatory fit on individuals' responses to green advertisements, showing that the impact of chronic regulatory orientation and regulatory fit can outweigh the impact of contextual thoughts of green advertisements.

Second, previous research on green advertisements and regulatory focus use fictional or random promotion-framed and prevention-framed green messages to test antecedents and consequences of green advertisement (e.g. Bullard & Manchanda, 2013; Kareklas et al., 2012; Ku et al., 2012). Research of this thesis is the first to investigate various green-related claims in real advertisements of eco-friendly products in Vietnam, New Zealand, Australia and utilize only the most commonly used green messages and advertising tactic to test hypotheses. In the search process, this thesis uses Google Web Search with various keywords such as “eco-friendly detergent,” “eco-friendly handwash,” “environmentally friendly liquid laundry,” “biodegradable cleaner,” “environmentally friendly shampoo,” to search for advertisements of consumer products of major green brands in these countries. Employing green messages from actual advertisements in the market renders findings in this thesis more realistic, as those green messages are what companies are actively using to persuade consumers and what consumers see in their shopping life.

Finally, although previous studies on green advertisements have explored the impacts of regulatory focus on consumer responses, the majority focus on responses of consumers in one country and draw broad conclusions from data collected from that country (e.g. Bickart & Ruth, 2012; Bullard & Manchanda, 2013; Kareklas et al., 2012; Ku et al., 2012; Miniero et al., 2014). In order to shed light on the effects of individuals' regulatory orientation on perceived message effectiveness, study 3 of this thesis collected, analyzed, and compared data from two countries representing two different cultures: Vietnam (an interdependent culture) and New Zealand (an independent culture). By conducting this cross-country comparison, findings from this study lend

more confidence to the conclusion than findings from studies which were conducted in one country.

6.6 Practical contributions

Along with theoretical and methodological contributions, this thesis offers three implications to the practice of advertising eco-friendly products.

First, according to previous studies on the persuasion knowledge model, advertisers should avoid letting consumers use persuasion knowledge to process information in their advertisements, as persuasion knowledge often causes unfavorable responses (e.g. Boerman et al., 2017; Chan Yun, 2009; Moore & Rodgers, 2005; Scott et al., 2013). The studies reported in this thesis reveal that perceived message effectiveness moderates the impact of persuasion knowledge on perceived message credibility. Specifically, consumers will perceive a higher level of message credibility when they use a higher level of persuasion knowledge to process information and when they think the green message in the advertisement is effective. The inference for companies which promote the consumption of eco-friendly products is that they should not pay too much attention to whether consumers use persuasion knowledge when seeing their advertisements or not. Instead, they should focus on designing better and more effective advertisements, so that these advertisements fit consumers' preferences. As long as advertisers deliver effective green messages in their advertisements, it does not matter if consumers use persuasion knowledge to process information in the advertisements and recognize the sales purpose or the way advertisers use to persuade them. If the messages are effective enough, consumers will value the advertisements more. Consumers who have the chance to think deeply about the advertising messages should understand not only the sales motive but also the social motive of green product advertisements.

Secondly, findings of this thesis suggest that consumers use different types of knowledge (persuasion knowledge, topic knowledge, and brand knowledge) to evaluate the credibility of advertisements. Consumers use persuasion knowledge and topic knowledge to evaluate message credibility and they use brand knowledge to evaluate brand credibility. Although advertisers may not be able to influence consumers' persuasion knowledge, they can aim to educate consumers about environmentally friendly products and how consuming these products helps the environment. The more

knowledge of eco-friendly products and their positive impacts on the environment consumers have, the higher message credibility consumers perceive. If consumers do not have much topic knowledge, it is likely that the efforts advertisers make to deliver effective advertisements will not be understood and valued. Advertisers can distribute brochures, organize talk shows, events, competitions, etc. to educate consumers and increase their knowledge of environmentally friendly products. In addition, because the greater brand knowledge consumers have the higher brand credibility consumers perceive, it is advisable to make the advertised brands available as much as possible so that consumers are able to remember the brands and make sure consumers know a lot about the brands (e.g. different products of a particular brand, characteristics of the products of a particular brand, companies which possess a particular brand, etc.).

Finally, findings from this thesis offer practical insight into how advertisers should frame their green messages in different countries, so that consumers will perceive a higher level of message effectiveness. This thesis shows that consumers with a stronger promotion-focused orientation will perceive a higher level of message effectiveness when being exposed to a promotion-framed green advertisement and those with a stronger prevention-focused orientation will perceive a higher level of message effectiveness when being exposed to a prevention-framed green advertisement, regardless of which cultures consumers are from (independent culture or interdependent culture). Therefore, advertisers should frame green messages in advertisements of eco-friendly products so that these messages match participants' dominant regulatory orientation. Findings from this thesis also confirm that most consumers from an independent culture have a stronger promotion-focused orientation and most consumers from an interdependent culture have a stronger prevention-focused orientation. It is therefore advisable to design advertising messages with promotion representations such as "better" or "greener" for products being advertised in independent cultures and to design advertising messages with prevention representation such as "safe" and "protect" for products advertised in interdependent cultures.

6.7 Limitations and future research directions

Although this thesis provides valuable insights into the understanding of the impacts of the persuasion knowledge model and individuals' regulatory orientation on credibility evaluations in the context of green advertising, there are several limitations that can be addressed in future research.

First, while investigating the impact of individuals' regulatory orientation on green advertisements' evaluation, contextual thoughts produced by green advertisements were not measured. It is possible that a green advertisement produces dissimilar contextual thoughts for consumers from different cultures because of different views on nature and environmental issues. It is thus important to determine what contextual thoughts (e.g. thoughts of a more global nature, thoughts of protectiveness, safety, etc.) might be evoked when consumers from an interdependent culture and those from an independent culture see an advertisement of eco-friendly products. Analyzing and comparing the potential interactions between these thoughts and individuals' regulatory orientation would also contribute more to the understanding of how consumers in various cultures evaluate green advertisements.

Second, this thesis does not use green messages which have different levels of perceived message effectiveness (low vs. high) to investigate the impacts of message effectiveness on the relationship between persuasion knowledge and message credibility. The average of perceived message effectiveness of each stimulus in all studies is greater than $M = 3.5$ (participants were asked to answer questions in seven-point Likert response format), which might not be realistic because there are not only effective green messages but also ineffective green messages in the marketplace. Besides, when the average of perceived message effectiveness of stimuli is high, it may be difficult to see the actual effect of ineffective messages on the relationship between persuasion knowledge and message credibility. Thus, it would be worthwhile to conduct an additional experiment which uses green messages with different levels of perceived message effectiveness to confirm the findings of this thesis.

Third, study 3 of this thesis uses student samples and this can potentially reduce the generalization of findings in this study. Although the use of student sample can help minimize confounding variables which can provide alternative explanations for the relationship tested in these studies (Druckman & Kam, 2011), it is better to conduct additional work across subjects to confirm the same results of study 3 and ascertain suggestions. Although study 1 of this thesis also uses a student sample, results of this study were confirmed in study 2 with a broader age range of consumers, who were recruited by an online panel. Thus, results of study 1 still can be generalizable to other populations.

Fourth, because the products used in the advertising stimuli for this thesis are dishwashing liquid and laundry liquid, this thesis category was restricted largely to household cleaning products rather than other types of products such as eco-friendly fuel (e.g. biogas), green vehicles (e.g. hybrid electric vehicles), environmentally friendly batteries, etc. Consumers may process information differently when being exposed to advertisements of different product categories. For example, in Vietnam, there are more advertisements of eco-friendly household cleaning products than those of green vehicles. In addition, eco-friendly household cleaning products can be found more easily and these products are more affordable than green vehicles. When being exposed to an advertisement of a green vehicle, Vietnamese consumers whose cognitive resources are available may use more persuasion knowledge to think about the advertisement, as the advertisement promotes the consumption of a new product category and consumers understand that the advertisement is trying to persuade them to purchase a very expensive product. In contrast, when being exposed to an advertisement of an eco-friendly household cleaning product, Vietnamese consumers may think “This is another advertisement of this type of product” and may not use much persuasion knowledge to process the information in the advertisement, even though their cognitive resources are also available. Thus, future research may wish to make the framework in this study be more applicable to a wider set of categories by testing it with different product categories.

Finally, the studies in this thesis only tested one type of appeals in green advertisements (promotion-framed appeal vs. prevention-framed appeal). Different types of appeals (e.g. emotional appeal vs. functional appeal, abstract appeal vs. concrete appeal, supportive appeal vs. assertive appeal) may lead to different responses from consumers with different regulatory orientations. For example, a study on the relationship between linguistics and regulatory focus has shown that abstract messages fit promotion-focused individuals more than concrete messages (Semin et al., 2005). Previous research on abstract and concrete green messages has shown that green advertisements which consist of an associative environmental message (which is more abstract) lead to a lower level of attitudes towards the advertisement, brand attitude and purchase intention than those which consist of a substantive environmental message (which is more concrete) (Chan & Lau, 2004). From this research, it is questionable whether promotion-focused individuals perceive an abstract green message as being

more effective or a concrete green message as being more effective. Similarly, it is questionable which type of green message (abstract or concrete) is more effective for prevention-focused individuals. Future research can extend the literature on effective green advertisement by investigating the influence of different types of green appeals on responses of consumers in different cultures.

6.8 Conclusion

Overall, this thesis provides insights into how consumers use their existing knowledge when being exposed to advertisements of eco-friendly products, emphasizing the vital role of cognitive resources and perceived message effectiveness. Ultimately, by comparing responses from two different cultures (an interdependent culture and an independent culture), this thesis reveals the significant impact of chronic regulatory orientation on evaluations of green advertisement. This thesis not only offers significant contributions to the literature on the persuasion knowledge model, evaluation of credibility, regulatory focus and regulatory fit theory in the context of green advertising, but also provides important contributions to advertising practice. Findings from this thesis can help advertisers draw resources to concentrate on the right influential factors (e.g. perceived message effectiveness) to achieve their advertising goals (e.g. increased perceived credibility). In addition, findings from this thesis also shed light on how advertisers should frame their advertising messages to attract more consumers from different cultures and consequently, boost the consumption of eco-friendly products around the world.

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Appendix A. Questionnaire used in Pretest 1 (English version)

An Invitation

Kia ora! My name is Truong Hoang Anh Tho and I am a Ph.D. student at the Department of Marketing, Advertising, Retailing and Sales in AUT University. I am conducting a research on evaluations of advertisements of eco-friendly products for my thesis. I would like to invite you to participate in this research.

What will happen in this research?

First, you will read the definitions and examples of types of advertising messages. Then, you will read advertising messages and categorize them into these different types.

How do you agree to participate in this research?

Please click on the “NEXT” button at the bottom of the page. Completion of the questionnaire will be taken as indicating your consent to participate.

How will your privacy be protected?

The information obtained from the questionnaire will remain confidential. Your name will not be recorded and you will remain anonymous.

What do you do if you have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Sommer Kapitan at sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do you contact for further information about this research?

You are also able to contact the research team as follows:

Project Supervisor: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Primary Researcher: Truong Hoang Anh Tho, becky.truong@aut.ac.nz, +64220483918.

Approved by the Auckland University of Technology Ethics Committee on 27 June 2017, AUTEK Reference number 17/200.

Screening questions:

Are you a NZ citizen?

☐ Yes

☐ No

Are you 18 years and over?

☐ Yes

☐ No

Instructions

In this study, you will see definitions and examples of **two types of advertising messages**. Please read these definitions and examples carefully.

Then, you will be shown **advertising for eco-friendly products**. Based on the definitions and examples, you will be asked to categorize these messages.

Definitions and examples of two types of advertising messages:

1. Type 1 messages:

- Trigger feelings of accomplishment, advancement, and aspiration when consumers use the product.
- Indicate that people would feel cheerful when product features are present, and disappointed when they are absent.
- Primarily focus on the gain of positive outcomes.

Example:

A car manufacturer can deliver this type 1 message: “This car has the most powerful engine in the world” to enable people to enjoy the excitement and adventure of driving a fast car.

2. Type 2 messages:

- Trigger a sense of protection, safety, responsibility, and security when consumers use the product.
- Indicate that the product has features that could help people avoid potential costs and losses when they use the product.
- People would feel relieved when these features are present and tense when they are absent.

Example:

A car manufacturer can deliver prevention-framed messages such as “This car has anti-lock brakes” to help trigger a sense of security and protection, because anti-lock brakes can reduce the probability of a collision and make people feel safe and secure.

Please categorize the following advertising for eco-friendly products into two categories: **type 1** or **type 2**.

Remember that there are no right or wrong answers. Please answer all questions to the best of your ability.

As a reminder:

- Type 1 messages tend to inspire a sense of accomplishment, and show how to **gain** of positive outcomes.
- Type 2 messages tend to inspire a sense of protection, and show how to **avoid** negative outcomes.

	Type 1	Type 2	I don't know
Example 1: The most powerful engine in the world.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Example 2: This car has anti-lock brakes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Better for the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No nasty chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For a greener planet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No laundry enzymes, No optical brighteners, No NaOH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Products that don't cost the earth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe, free from harmful chemicals & fragrances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your next step towards a better environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural, organic, biodegradable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe for the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protect the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmentally friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100% natural eco-friendly cleaning solution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100% natural ingredients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gentle on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ecologically conscientious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soft on nature, soft on you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Type 1	Type 2	I don't know
Stop torturing our aquatic life, clean with our products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce your carbon footprint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating a greener footprint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free of brighteners, enzymes and synthetic fragrances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The greener cleaner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural and renewable materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please specify your gender:

☐ Male

☐ Female

☐ Other

What is your age?

How many children do you have?

What is your highest education level?

☐ School Certificate/NCEA Level 1

☐ Sixth Form Certificate/NCEA Level 2

☐ Bursary/NCEA Level 3

☐ Tertiary Certificate

☐ Tertiary Diploma (Polytechnic or University)

☐ Bachelor's Degree

☐ Postgraduate Degree

What is your annual income range?

☐ Below \$20,000

☐ \$20,000 - \$29,999

☐ \$30,000 - \$39,999

☐ \$40,000 - \$49,999

☐ \$50,000 - \$59,999

☐ \$60,000 - \$69,999

☐ \$70,000 - \$79,999

☐ \$80,000 - \$89,999

☐ \$90,000 or more

End of the survey. Thank you very much for your participation!

Appendix B. Questionnaire used in Pretest 1 (Vietnamese version)

Thư mời

Chào bạn! Tôi tên là Trương Hoàng Anh Thơ, hiện đang là nghiên cứu sinh tại khoa MARS, trường đại học công nghệ Auckland (New Zealand). Hiện tại tôi đang nghiên cứu về đánh giá của người tiêu dùng đối với quảng cáo các sản phẩm thân thiện với môi trường và tôi muốn mời bạn tham gia vào nghiên cứu này.

Bạn sẽ làm gì nếu tham gia vào nghiên cứu này?

Đầu tiên bạn sẽ đọc những khái niệm và ví dụ của các loại thông điệp quảng cáo. Sau đó, bạn sẽ đọc một số thông điệp quảng cáo và sắp xếp chúng vào những nhóm phù hợp.

Bạn sẽ thể hiện việc đồng ý tham gia vào nghiên cứu này bằng cách nào?

Nhấn vào nút “Tiếp tục” ở cuối màn hình. Việc hoàn thành bản khảo sát được xem là một hình thức đồng ý tham gia khảo sát

Những thông tin cá nhân của bạn sẽ được bảo vệ như thế nào?

Những thông tin thu thập được từ bảng khảo sát sẽ được bảo mật. Tên của bạn sẽ không bị ghi lại và bạn sẽ được ẩn danh.

Bạn sẽ làm gì nếu có những lo ngại về nghiên cứu này?

Nếu bạn có những lo ngại về bản chất của nghiên cứu này, vui lòng liên lạc người hướng dẫn dự án: Tiến sĩ Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Nếu bạn có những lo ngại về cách thực hiện nghiên cứu này, vui lòng liên lạc thư ký điều hành của AUTC: Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Nếu bạn muốn biết thêm thông tin về nghiên cứu, bạn cần liên hệ người nào?

Bạn có thể liên lạc các thành viên của nghiên cứu này theo địa chỉ:

Người hướng dẫn dự án: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Người nghiên cứu chính: Trương Hoàng Anh Thơ, becky.truong@aut.ac.nz, +64220483918.

Khảo sát này được thông qua bởi Hội đồng bảo vệ đạo đức nghiên cứu Đại học công nghệ Auckland vào ngày 27/6/2017, số tham chiếu 17/200.

Câu hỏi sàng lọc đối tượng khảo sát:

Bạn có mang quốc tịch Việt Nam không?

☐ Có

☐ Không

Bạn từ 18 tuổi trở lên?

☐ Phải

☐ Không phải

Hướng dẫn

Trong khảo sát này, bạn sẽ đọc định nghĩa và ví dụ của **hai loại thông điệp quảng cáo**. Vui lòng đọc những định nghĩa và ví dụ này thật kĩ.

Sau đó, bạn sẽ đọc **một số thông điệp quảng cáo các sản phẩm thân thiện với môi trường**. Dựa vào định nghĩa và ví dụ đã đọc, hãy xếp các thông điệp quảng cáo được cung cấp vào các nhóm phù hợp.

Định nghĩa và ví dụ của hai loại thông điệp quảng cáo:

1. Thông điệp loại 1 có một trong các đặc điểm sau:

- Khiến người dùng nghĩ đến thành tựu hoặc sự tiến bộ khi sử dụng sản phẩm.
- Ngầm chỉ rằng sản phẩm khiến người sử dụng cảm thấy vui vẻ với những tính năng hiện có.
- Chủ yếu nhấn mạnh việc đạt được những kết quả tích cực.

Ví dụ: Một nhà sản xuất xe ô tô có thể truyền tải thông điệp loại 1 như sau:

“Chiếc xe này có động cơ mạnh mẽ nhất thế giới”. Thông điệp này khiến người tiêu dùng cảm thấy thích thú và cảm nhận sự mạo hiểm khi lái một chiếc xe mạnh mẽ.

2. Thông điệp loại 2 có một trong các đặc điểm sau:

- Khiến người dùng nghĩ đến việc bảo vệ, sự an toàn, và trách nhiệm khi sử dụng sản phẩm.
- Ngầm chỉ rằng sản phẩm có những tính năng giúp người sử dụng tránh những chi phí và mất mát tiềm năng.
- Người sử dụng sẽ cảm thấy nhẹ nhõm với những tính năng hiện có và cảm thấy căng thẳng nếu những tính năng này mất đi.

Ví dụ: Một nhà sản xuất xe ô tô có thể truyền tải thông điệp loại 2 như sau:

“Chiếc xe này có hệ thống chống khóa thắng”. Thông điệp này khiến người nghe cảm thấy an toàn và được bảo vệ vì hệ thống chống khóa thắng có thể giảm xác suất va chạm và khiến người sử dụng cảm thấy an tâm.

Hãy sắp xếp những thông điệp quảng cáo về các sản phẩm thân thiện với môi trường sau đây thành hai nhóm: **loại 1** và **loại 2**.

Trong bảng khảo sát này không có câu trả lời đúng hoặc sai. Hãy cố gắng trả lời trong phạm vi hiểu biết của bạn.

Ghi chú:

- Thông điệp loại 1 khiến người tiêu dùng nghĩ đến thành tựu hoặc sự tiến bộ, nhấn mạnh việc **đạt được** những kết quả tích cực.
- Thông điệp loại 2 khiến người tiêu dùng nghĩ đến việc bảo vệ, sự an toàn, nhấn mạnh việc **né tránh** những kết quả tiêu cực.

	Thông điệp loại 1	Thông điệp loại 2	Không rõ
Ví dụ 1: Động cơ mạnh mẽ nhất thế giới.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ví dụ 2: Chiếc xe này có hệ thống chống khóa thắng.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tốt hơn cho môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Không chứa hóa chất độc hại.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vì một hành tinh xanh hơn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Không chứa chất tẩy độc hại, làm trắng quang học, xút (NaOH).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Không gây ảnh hưởng đến trái đất.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An toàn, không chứa hóa chất độc hại và chất tạo mùi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Làm từ nguyên liệu hữu cơ tự nhiên, có khả năng tự phân hủy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An toàn cho môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bảo vệ môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thân thiện với môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Giải pháp làm sạch với 100% nguyên liệu thân thiện với môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Thông điệp loại 1	Thông điệp loại 2	Không rõ
Làm từ 100% nguyên liệu thiên nhiên.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dịu dàng với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quan tâm tới môi trường sinh thái.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dịu nhẹ với môi trường và dịu nhẹ với tay bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hãy dừng việc tra tấn những sinh vật biển, hãy làm sạch với sản phẩm của chúng tôi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Giảm lượng khí carbon bạn thải ra môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khiến lượng khí carbon thải ra môi trường trở nên xanh hơn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Không chứa chất tẩy trắng, enzym và chất tạo mùi nhân tạo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chất tẩy rửa xanh dành cho môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Làm từ nguyên liệu tự nhiên và có thể làm mới	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Giới tính của bạn là:

☐ Nam

☐ Nữ

☐ Khác

Bạn bao nhiêu tuổi?

Bạn có bao nhiêu đứa con?

Trình độ học vấn cao nhất của bạn là gì?

- ☐ Tiểu học
- ☐ Trung học cơ sở
- ☐ Trung học phổ thông
- ☐ Trung cấp
- ☐ Cao đẳng
- ☐ Đại học
- ☐ Sau đại học

Thu nhập hàng tháng của bạn nằm trong khoảng nào?

- ☐ Dưới 5 triệu VNĐ
- ☐ 5 triệu VNĐ - 9.99 triệu VNĐ
- ☐ 10 triệu VNĐ - 14.99 triệu VNĐ
- ☐ 15 triệu VNĐ - 19.99 triệu VNĐ
- ☐ 20 triệu VNĐ - 24.99 triệu VNĐ
- ☐ 25 triệu VNĐ trở lên

Kết thúc khảo sát! Cảm ơn bạn đã tham gia!

Appendix C. Advertisements used in Pretest 2


Advertisement 1 (English version)



Advertisement 1 (Vietnamese version)



Advertisement 2 (English version)



The advertisement features a clear plastic bottle of 'A' brand antibacterial dishwashing liquid. The bottle has a white pump dispenser and a label with the brand name 'A' in a grey box, followed by 'antibacterial' in red and 'DISHWASHING LIQUID' in small black letters. Below this, it says 'Deep Cleansing' and 'Sea Minerals 250mL e'. To the right of the bottle, the text 'No nasty chemicals' is written in a large, bold, dark grey font. Above the bottle, there is a grey rectangular box with a white 'A' inside, and below it, the text 'NATURAL DISHWASHING LIQUID' in small black capital letters.

A
NATURAL DISHWASHING LIQUID

A
antibacterial
DISHWASHING LIQUID
Deep Cleansing
Sea Minerals
250mL e

No nasty chemicals

Advertisement 2 (Vietnamese version)



The advertisement features a clear plastic bottle of 'A' brand antibacterial dishwashing liquid. The bottle has a white pump dispenser and a label with the brand name 'A' in a grey box, followed by 'kháng khuẩn' in red and 'NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN' in small black letters. Below this, it says 'Làm sạch sâu' and 'KHÔNG CHỨA HÓA CHẤT ĐỘC HẠI 250mL e'. To the right of the bottle, the text 'Không chứa hóa chất độc hại' is written in a large, bold, dark grey font. Above the bottle, there is a grey rectangular box with a white 'A' inside, and below it, the text 'NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN' in small black capital letters.

A
NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN

A
kháng khuẩn
NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN
Làm sạch sâu
KHÔNG CHỨA HÓA CHẤT ĐỘC HẠI
250mL e

Không chứa hóa chất độc hại

Advertisement 3 (English version)



A
NATURAL DISHWASHING LIQUID

A
antibacterial
DISHWASHING LIQUID
Deep Cleansing
Sea Minerals
250mL e

For a greener planet

Advertisement 3 (Vietnamese version)

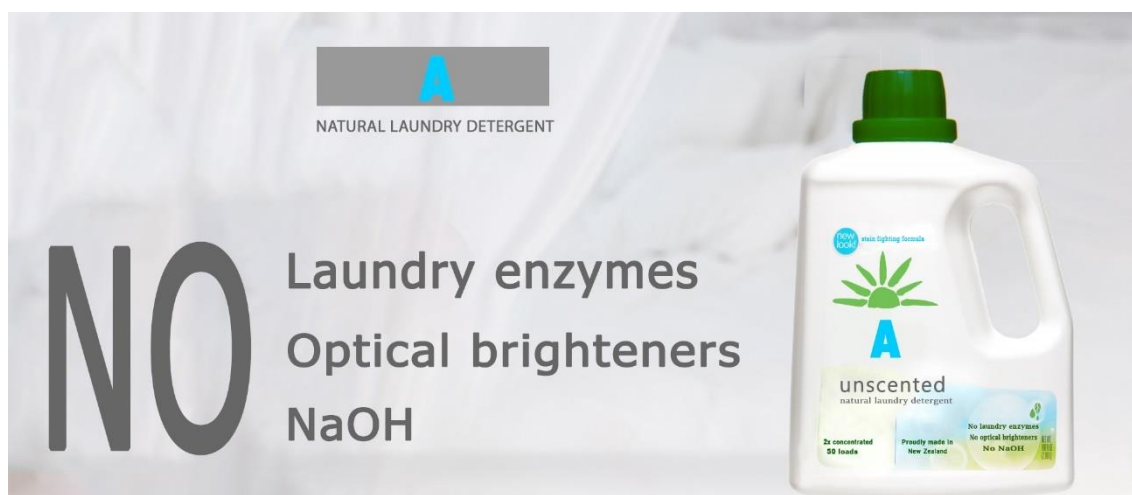


A
NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN

A
kháng khuẩn
NƯỚC RỬA CHÉN TỰ THIÊN NHIÊN
Làm sạch sâu
250mL e

Vì một hành tinh
xanh hơn

Advertisement 4 (English version)



Advertisement 4 (Vietnamese version)



Advertisement 6 (English version)



Advertisement 6 (Vietnamese version)



Advertisement 7 (English version)



Advertisement 7 (Vietnamese version)



Advertisement 8 (English version)



Advertisement 8 (Vietnamese version)



Advertisement 9 (English version)



Advertisement 9 (Vietnamese version)



Advertisement 10 (English version)



Advertisement 10 (Vietnamese version)



Appendix D. Questionnaire used in Pretest 2 (English version)

An Invitation

Kia ora! My name is Truong Hoang Anh Tho and I am a Ph.D. student at the Department of Marketing, Advertising, Retailing and Sales in AUT University. I am conducting a research on evaluations of advertisements of eco-friendly products for my thesis. I would like to invite you to participate in this research.

What will happen in this research?

First, you will see some advertisements of eco-friendly products. Then, you will be asked to answer questions regarding these advertisements.

How do you agree to participate in this research?

Please click on the “NEXT” button at the bottom of the page. Completion of the questionnaire will be taken as indicating your consent to participate.

How will your privacy be protected?

The information obtained from the questionnaire will remain confidential. Your name will not be recorded and you will remain anonymous.

What do you do if you have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Sommer Kapitan at sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do you contact for further information about this research?

You are also able to contact the research team as follows:

Project Supervisor: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Primary Researcher: Truong Hoang Anh Tho, becky.truong@aut.ac.nz, +64220483918.

Approved by the Auckland University of Technology Ethics Committee on 27 June 2017, AUTECH Reference number 17/200.

Screening questions:

Are you a NZ citizen?

☐ Yes

☐ No

In which of these age groups do you come into?

☐ Under 18 years

☐ 18 – 22 years

☐ 23 – 30 years

☐ 31 – 38 years

☐ 39 – 46 years

☐ 47 – 54 years

☐ 55 – 62 years

☐ Over 62 years

Please specify your gender:

☐ Male

☐ Female

Each participant was randomly shown four or five advertisements in Appendix 3.

Self-report measures for all participants:

Please take a moment to look at the advertisement of **brand A** below.

[One random advertisement of Brand A in Appendix 3]

Please indicate your **agreement or disagreement** with the statements below the advertisement by ticking the options which best reflect your own opinion.

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
If I were to need [a product like this], this advertisement would persuade me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My general reaction to this advertisement is positive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my personal preference, this advertisement is effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After looking at this advertisement, I feel that the image of brand A is strong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This advertisement helps the image of brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase [green message] impactful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase [green message] effective in persuading me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: The phrase [a product like this] was replaced either by “an eco-friendly laundry detergent” or by “an eco-friendly dishwashing liquid”. The text [green message] in the last two questions is the same with the text printed in the advertisement.

End of the survey. Thank you very much for your participation!

Appendix E. Questionnaire used in Pretest 2 (Vietnamese version)

Thư mời

Chào bạn! Tôi tên là Trương Hoàng Anh Thơ, hiện đang là nghiên cứu sinh tại khoa MARS, trường đại học công nghệ Auckland (New Zealand). Hiện tại tôi đang nghiên cứu về đánh giá của người tiêu dùng đối với quảng cáo các sản phẩm thân thiện với môi trường và tôi muốn mời bạn tham gia vào nghiên cứu này.

Bạn sẽ làm gì nếu tham gia vào nghiên cứu này?

Đầu tiên bạn sẽ xem một số quảng cáo của sản phẩm thân thiện với môi trường. Sau đó, bạn sẽ trả lời các câu hỏi liên quan đến những mẫu quảng cáo này.

Bạn sẽ thể hiện việc đồng ý tham gia vào nghiên cứu này bằng cách nào?

Nhấn vào nút “Tiếp tục” ở cuối màn hình. Việc hoàn thành bản khảo sát được xem là một hình thức đồng ý tham gia khảo sát

Những thông tin cá nhân của bạn sẽ được bảo vệ như thế nào?

Những thông tin thu thập được từ bảng khảo sát sẽ được bảo mật. Tên của bạn sẽ không bị ghi lại và bạn sẽ được ẩn danh.

Bạn sẽ làm gì nếu có những lo ngại về nghiên cứu này?

Nếu bạn có những lo ngại về bản chất của nghiên cứu này, vui lòng liên lạc người hướng dẫn dự án: Tiến sĩ Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Nếu bạn có những lo ngại về cách thực hiện nghiên cứu này, vui lòng liên lạc thư ký điều hành của AUTC: Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Nếu bạn muốn biết thêm thông tin về nghiên cứu, bạn cần liên hệ người nào?

Bạn có thể liên lạc các thành viên của nghiên cứu này theo địa chỉ:

Người hướng dẫn dự án: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Người nghiên cứu chính: Trương Hoàng Anh Thơ, becky.truong@aut.ac.nz, +64220483918.

Khảo sát này được thông qua bởi Hội đồng bảo vệ đạo đức nghiên cứu Đại học công nghệ Auckland vào ngày 27/6/2017, số tham chiếu 17/200.

Câu hỏi sàng lọc đối tượng khảo sát:

Bạn có mang quốc tịch Việt Nam không?

☐ Có

☐ Không

Bạn thuộc nhóm tuổi nào?

☐ Dưới 18 tuổi

☐ 18 – 22 tuổi

☐ 23 – 30 tuổi

☐ 31 – 38 tuổi

☐ 39 – 46 tuổi

☐ 47 – 54 tuổi

☐ 55 – 62 tuổi

☐ Trên 62 tuổi

Giới tính của bạn là:

☐ Nam

☐ Nữ

Mỗi người tham gia xem bốn hoặc năm mẫu quảng cáo ngẫu nhiên trong phụ lục 3.

Câu hỏi dành cho tất cả người tham gia:

Vui lòng xem mẫu quảng cáo sau của thương hiệu A dưới đây.

[Một mẫu quảng cáo ngẫu nhiên của thương hiệu A trong Bảng phụ lục 3]

Vui lòng thể hiện **mức độ đồng ý hoặc không đồng ý** của bạn bằng cách đánh dấu vào ô thể hiện đúng nhất ý kiến của bạn.

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Nếu tôi cần mua [một sản phẩm giống như loại sản phẩm được giới thiệu trong quảng cáo này] thì việc đọc quảng cáo này có thể thuyết phục tôi mua thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nhìn chung thì phản ứng của tôi đối với mẫu quảng cáo này là tốt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy mẫu quảng cáo này hiệu quả, bất kể sở thích của tôi là như thế nào.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sau khi đọc mẫu quảng cáo này, tôi cảm nhận hình ảnh của thương hiệu A rất vững chắc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mẫu quảng cáo này giúp xây dựng hình ảnh thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy thông điệp [thông điệp] có tác động mạnh mẽ.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy thông điệp [thông điệp] có hiệu quả trong việc thuyết phục tôi mua thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lưu ý: Cụm từ [một sản phẩm giống như loại sản phẩm được giới thiệu trong quảng cáo này] được thay thế bằng cụm từ [nước giặt thân thiện với môi trường] hoặc [nước rửa chén thân thiện với môi trường]. Dòng chữ [thông điệp] trong hai câu hỏi cuối có nội dung giống thông điệp xanh trong mẫu quảng cáo.

Kết thúc khảo sát! Cảm ơn bạn đã tham gia!

Appendix F. Experimental design of study 1 (English translation)

Step 1: Participants read the Participant Information Sheet

An Invitation

Kia ora! My name is Truong Hoang Anh Tho and I am a Ph.D. student at the Department of Marketing, Advertising, Retailing and Sales in AUT University. I am conducting a research on evaluations of advertisements of eco-friendly products for my thesis. I would like to invite you to participate in this research.

What will happen in this research?

First, you will see an advertisement of an eco-friendly product. Then, you will be asked to answer questions regarding this advertisement.

How do you agree to participate in this research?

Please click on the “NEXT” button at the bottom of the page. Completion of the questionnaire will be taken as indicating your consent to participate.

How will your privacy be protected?

The information obtained from the questionnaire will remain confidential. Your name will not be recorded and you will remain anonymous.

What do you do if you have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Sommer Kapitan at sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do you contact for further information about this research?

You are also able to contact the research team as follows:

Project Supervisor: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Primary Researcher: Truong Hoang Anh Tho, becky.truong@aut.ac.nz, +64220483918.

Approved by the Auckland University of Technology Ethics Committee on 27 June 2017, AUTECH Reference number 17/200.

Step 2: All participants answered the following screening questions

Are you a Vietnamese undergraduate student? ☐ Yes ☐ No

Are you 18-24 years old? ☐ Yes ☐ No

Step 3: Manipulation of cognitive resources

Qualified participants were randomly divided into 2 groups.

➤ *Instruction for participants in group 1:*

Please memorize this number and do not record the number elsewhere: **94658952**. You will be asked to write down this number after completing all questions given.

➤ *Instruction for participants in group 2:*

Let's check if the device you are using can display pictures clearly. Please click on the photos with cats. The NEXT button will appear after 15 seconds.



Step 4: Participants read the advertisement and answer questions

Please take a moment to look at the following advertisement and answer the corresponding questions by ticking the options which best reflect your own opinion.

[Each participant was randomly shown an advertisement of the brand A below]

Advertisement 7



Advertisement 9



Self-report measures for participants in both groups:

Section 1: Please indicate your agreement or disagreement with the statements below:

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
While reading this advertisement, I thought about the meaning of the message of the item about A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I analyzed the item about A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I evaluated the item about A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to influence my opinion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to make me like A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to sell eco-friendly laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The aim of this advertisement is to stimulate the sales of eco-friendly laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I were to need an eco-friendly laundry detergent, this advertisement would persuade me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My general reaction to this advertisement is positive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my personal preference, this advertisement is effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After looking at this advertisement, I feel that the image of brand A is strong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This advertisement helps the image of brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase [green message] impactful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase [green message] effective in persuading me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: The text [green message] in the last two questions is the same with the green message in advertisement 7 or advertisement 9.

Section 2: I found the message in the advertisement to be

Extremely unconvincing <input type="checkbox"/>	Quite unconvincing <input type="checkbox"/>	Slightly unconvincing <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly convincing <input type="checkbox"/>	Quite convincing <input type="checkbox"/>	Extremely convincing <input type="checkbox"/>
Extremely biased <input type="checkbox"/>	Quite biased <input type="checkbox"/>	Slightly biased <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly unbiased <input type="checkbox"/>	Quite unbiased <input type="checkbox"/>	Extremely unbiased <input type="checkbox"/>
Extremely unbelievable <input type="checkbox"/>	Quite unbelievable <input type="checkbox"/>	Slightly unbelievable <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly believable <input type="checkbox"/>	Quite believable <input type="checkbox"/>	Extremely believable <input type="checkbox"/>

Section 3: Please indicate your agreement or disagreement with the statements below:

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
My mind was occupied with other thoughts as I look at the advertisement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I found it hard to concentrate on the advertisement alone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 4: In this final section, please tell us a little bit about you. To what extent do you **agree or disagree** with the statements below?

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
When it comes to achieving things that are important to me, I find that I don't perform as well as I would ideally like to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I have made progress toward being successful in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I see an opportunity for something I like, I get excited right away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I frequently imagine how I will achieve my hopes and aspirations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I see myself as someone who is primarily striving to reach my "ideal self"—to fulfill my hopes, wishes, and aspirations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually obeyed rules and regulations that were established by my parents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not being careful enough has gotten me into trouble at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I worry about making mistakes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I frequently think about how I can prevent failures in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I see myself as someone who is primarily striving to become the self I "ought" to be—fulfill my duties, responsibilities and obligations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Demographic question: Please specify your gender: ☐ Male ☐ Female

Step 5: Manipulation check

Participants in group 1 were asked to do an additional task: "Please write down the number you are asked to memorize at the beginning of this survey:"

Step 6: Gave the link of summary of the research findings to all participants

All participants were informed that: "The summary of the research findings will be uploaded to the following link after the data analysis is completed:
<http://bit.ly/2r1Nu9x>"

Step 7: Participants read the Prize Entry Form

Participants were informed that: "If you wish to enter the prize draw, please click on the link below. This link leads to an independent page. If you do not wish to enter the prize draw, please close the browser."

Prize Entry Form for Study 1

Thank you for taking the time to participate in this study. You are eligible to enter the prize draw to win a voucher of VND300,000 to shop at Coopmart. To enter the prize draw, please accept the **Terms and Conditions of Entry** below, providing your email address, and click the SUBMIT button at the end of the page.

Terms and Conditions of Entry:

1. The Promoter is the primary researcher of the research project.
2. There are three vouchers to shop at Coopmart (VND300,000 each) to be won in total. The prize is not transferable, refundable, exchangeable, and cannot be taken as cash.
3. To enter the prize draw, the entrant must:
 - Complete the questionnaire of the study
 - Accept the Terms and Conditions of Entry, provide the email address, and click the SUBMIT button at the end of the page.
4. Entry to the prize draw is voluntary and all entries will act as acceptance of the Terms and Conditions of Entry.
5. Entrants may only enter the prize draw once.
6. The draw will be by random number generator from all eligible entries received with the first three entries drawn being the prize winners.
7. The prize draw opens for entries on 13/11/2017 and the prize draw closes on 19/11/2017. The prize winners will be selected by random draw, which will take place at AUT on 30/11/2017.
8. The prize winners will be contacted within seven days of the draw by the email address supplied by the entrants on the Prize Entry Form.
9. If the prize winner does not respond to claim the prize within 21 days of the draw, a re-draw will be conducted within 30 days of the original draw date, in the same location, and with the same method. Redraws will continue in the same manner until all prizes have been claimed by the prize winners.
10. The prize will be available for collection at Foreign Trade University of Vietnam at a time organized as suitable for the winners. The prize winner will be responsible for all costs associated with collecting and using the prize.
11. The Promoter's decision regarding the winners is final and no correspondence will be entered into.
12. Personal information collected will be kept strictly confidential and will not be sold, reused, rented, loaned or disclosed to any third party.

A declaration by the entrant:

☐ I agree to all the terms and conditions specified above.

Entrant's email address:

SUBMIT

Appendix G. Experimental design of study 1 (Vietnamese version)

Bước 1: Người tham gia đọc Phiếu thông tin dành cho người tham gia

Thư mời

Chào bạn! Tôi tên là Trương Hoàng Anh Thơ, hiện đang là nghiên cứu sinh tại khoa MARS, trường đại học công nghệ Auckland (New Zealand). Hiện tại tôi đang nghiên cứu về đánh giá của người tiêu dùng đối với quảng cáo các sản phẩm thân thiện với môi trường và tôi muốn mời bạn tham gia vào nghiên cứu này.

Bạn sẽ làm gì nếu tham gia vào nghiên cứu này?

Đầu tiên bạn sẽ xem một quảng cáo của sản phẩm thân thiện với môi trường. Sau đó, bạn sẽ trả lời các câu hỏi liên quan đến mẫu quảng cáo này.

Bạn sẽ thể hiện việc đồng ý tham gia vào nghiên cứu này bằng cách nào?

Nhấn vào nút “Tiếp tục” ở cuối màn hình. Việc hoàn thành bản khảo sát được xem là một hình thức đồng ý tham gia khảo sát

Những thông tin cá nhân của bạn sẽ được bảo vệ như thế nào?

Những thông tin thu thập được từ bảng khảo sát sẽ được bảo mật. Tên của bạn sẽ không bị ghi lại và bạn sẽ được ẩn danh.

Bạn sẽ làm gì nếu có những lo ngại về nghiên cứu này?

Nếu bạn có những lo ngại về bản chất của nghiên cứu này, vui lòng liên lạc người hướng dẫn dự án: Tiến sĩ Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Nếu bạn có những lo ngại về cách thực hiện nghiên cứu này, vui lòng liên lạc thư ký điều hành của AUTECH: Kate O'Connor, ethics@aut.ac.nz , 921 9999 ext 6038.

Nếu bạn muốn biết thêm thông tin về nghiên cứu, bạn cần liên hệ người nào?

Bạn có thể liên lạc các thành viên của nghiên cứu này theo địa chỉ:

Người hướng dẫn dự án: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Người nghiên cứu chính: Trương Hoàng Anh Thơ, becky.truong@aut.ac.nz, +64220483918.

Khảo sát này được thông qua bởi Hội đồng bảo vệ đạo đức nghiên cứu Đại học công nghệ Auckland vào ngày 27/6/2017, số tham chiếu 17/200.

Bước 2: Tất cả người tham gia trả lời câu hỏi sàng lọc sau

Bạn có phải là sinh viên đại học người Việt Nam? ☐ Phải ☐ Không phải

Bạn từ 18 - 24 tuổi? ☐ Phải ☐ Không phải

Bước 3: Điều khiển tài nguyên nhận thức

Những người đủ điều kiện tham gia được chia thành 2 nhóm một cách ngẫu nhiên.

➤ *Hướng dẫn dành cho nhóm 1:*

Vui lòng ghi nhớ con số sau đây và không ghi chép lại con số này: **94658952**. Bạn sẽ được yêu cầu ghi lại con số này sau khi hoàn thành tất cả các câu hỏi.

➤ *Hướng dẫn dành cho nhóm 2:*

Hãy kiểm tra xem thiết bị bạn đang sử dụng có hiển thị hình ảnh rõ nét không bằng cách chọn những hình có con mèo dưới đây.

Nút TIẾP TỤC sẽ hiển thị sau 15 giây.



Bước 4: Người tham gia đọc mẫu quảng cáo và trả lời câu hỏi

Vui lòng xem mẫu quảng cáo sau và chọn phương án thể hiện đúng nhất ý kiến của bạn.

[Một trong hai mẫu quảng cáo của thương hiệu A được chọn ngẫu nhiên sau]

Mẫu quảng cáo số 7



Mẫu quảng cáo số 9



Câu hỏi dành cho tất cả người tham gia:

Phần 1: Vui lòng chọn phương án thể hiện đúng nhất ý kiến của bạn

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Khi đọc mẫu quảng cáo này, tôi đã nghĩ về ý nghĩa của thông điệp mà A truyền tải.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc mẫu quảng cáo này, tôi đã phân tích những chi tiết về A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc mẫu quảng cáo này, tôi đã đánh giá những chi tiết về A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để gây ảnh hưởng đến suy nghĩ của tôi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mục đích của mẫu quảng cáo này để khiến tôi thích A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để kích thích việc bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nếu tôi cần mua một chai nước giặt thân thiện với môi trường giống như loại nước giặt được giới thiệu trong quảng cáo này thì việc đọc quảng cáo này có thể thuyết phục tôi mua nước giặt hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nhìn chung thì phản ứng của tôi đối với mẫu quảng cáo này là tốt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy mẫu quảng cáo này hiệu quả, bất kể sở thích của tôi là như thế nào.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sau khi đọc mẫu quảng cáo này, tôi cảm nhận hình ảnh của thương hiệu A rất vững chắc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mẫu quảng cáo này giúp xây dựng hình ảnh thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy thông điệp [thông điệp] có tác động mạnh mẽ.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tôi cảm thấy thông điệp [thông điệp] có hiệu quả trong việc thuyết phục tôi mua thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lưu ý: Dòng chữ [thông điệp] trong hai câu hỏi cuối có nội dung giống thông điệp trong mẫu quảng cáo 7 hoặc 9.

Phần 2: Tôi cảm thấy thông điệp trong hình quảng cáo

Hoàn toàn không thuyết phục <input type="checkbox"/>	Không thuyết phục <input type="checkbox"/>	Hơi không thuyết phục <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi thuyết phục <input type="checkbox"/>	Thuyết phục <input type="checkbox"/>	Hoàn toàn thuyết phục <input type="checkbox"/>
Hoàn toàn phiến diện <input type="checkbox"/>	Phiến diện <input type="checkbox"/>	Hơi phiến diện <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi không phiến diện <input type="checkbox"/>	Không phiến diện <input type="checkbox"/>	Hoàn toàn không phiến diện <input type="checkbox"/>
Hoàn toàn không đáng tin <input type="checkbox"/>	Không đáng tin <input type="checkbox"/>	Hơi không đáng tin <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi đáng tin <input type="checkbox"/>	Đáng tin <input type="checkbox"/>	Rất đáng tin <input type="checkbox"/>

Phần 3: Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Khi đọc mẫu quảng cáo này, tôi đã nghĩ về ý nghĩa của thông điệp mà A truyền tải.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc mẫu quảng cáo này, tôi đã phân tích những chi tiết về A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 4: Ở phần cuối này, vui lòng cho cô biết một chút về bạn. Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Bạn thường không làm hết sức mình để đạt được những thứ quan trọng với bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy rằng bạn đang tiến dần đến sự thành công.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn bị kích thích ngay lập tức khi thấy cơ hội làm một việc mình thích	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn thường tưởng tượng xem bạn sẽ dùng cách nào để đạt được ước mơ và khát vọng của mình.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Để hoàn thành những ước muốn, hi vọng và khát vọng của mình, bạn luôn cố gắng trở thành một hình tượng lý tưởng theo cách nghĩ của mình.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn luôn tuân theo những phép tắc và quy định do ba mẹ đặt ra.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Việc làm việc thiếu cẩn thận đôi khi đã khiến bạn gặp rắc rối.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn lo lắng việc bạn sẽ phạm lỗi hoặc sai lầm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn thường xuyên nghĩ về việc làm sao để ngăn chặn những sai lầm xảy ra trong cuộc đời bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Để hoàn thành những bổn phận, trách nhiệm và nghĩa vụ của mình, bạn luôn cố gắng trở thành người bạn nên trở thành.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Câu hỏi về nhân khẩu học: Giới tính của bạn là: ☐ Nam

☐ Nữ

Bước 5: Kiểm tra việc điều khiển tài nguyên nhận thức

Người tham gia trong nhóm 1 được yêu cầu làm thêm một nhiệm vụ: “Vui lòng ghi lại con số bạn được yêu cầu ghi nhớ trước khi bắt đầu bảng khảo sát:”

Bước 6: Cung cấp đường link của bản tóm tắt nghiên cứu cho người tham gia

Tất cả người tham gia được thông báo rằng: “Sau khi dữ liệu được phân tích xong, bản tóm tắt của nghiên cứu sẽ được đăng tải lên địa chỉ sau: *http://bit.ly/2r1Nu9x*”

Bước 7: Người tham gia đọc biểu mẫu rút thăm trúng thưởng

Tất cả người tham gia được thông báo rằng: “Nếu bạn muốn tham gia rút thăm trúng thưởng, vui lòng nhấp vào đường link dưới đây. Đường link này dẫn đến một trang web độc lập với khảo sát bạn vừa thực hiện. Nếu bạn không muốn tham gia rút thăm trúng thưởng, vui lòng đóng trình duyệt.”

Biểu mẫu rút thăm trúng thưởng cho nghiên cứu 1

Cám ơn bạn đã dành thời gian tham gia vào nghiên cứu này. Bạn đủ điều kiện tham gia rút thăm nhằm sở hữu một trong ba phiếu mua hàng tại Coopmart trị giá 300,000VND. Để tham gia, vui lòng đồng ý những **Điều khoản và Điều kiện tham gia** dưới đây, cung cấp địa chỉ email, và nhấp nút SUBMIT ở cuối trang.

Điều khoản và Điều kiện tham gia:

1. Người tổ chức là người nghiên cứu có tên trong Phiếu thông tin.
2. Tổng cộng có 3 giải thưởng, mỗi giải là 01 phiếu mua hàng tại Coopmart trị giá 300,000VND. Giải thưởng không được chuyển nhượng, hoàn lại tiền, đổi lại và không thể thay thế bằng tiền mặt.
3. Để tham gia rút thăm, người tham gia phải:
 - Hoàn thành bảng câu hỏi của nghiên cứu.
 - Đồng ý Điều khoản và Điều kiện tham gia, cung cấp địa chỉ email, nhấp nút SUBMIT ở cuối trang.
4. Việc tham gia rút thăm trúng thưởng là tự nguyện và việc đăng ký tham gia rút thăm đồng nghĩa với việc người tham gia đồng ý với tất cả điều khoản và điều kiện tham gia.
5. Mỗi người chỉ được tham gia 1 lần.
6. Giải thưởng sẽ được quyết định bằng phần mềm chọn số ngẫu nhiên, mỗi địa chỉ email sẽ được mã hóa thành một con số và ba con số được phần mềm chọn đầu tiên sẽ quyết định ba người chiến thắng.
7. Việc đăng ký tham gia rút thăm trúng thưởng bắt đầu từ ngày 13/11/2017 và kết thúc từ ngày 19/11/2017. Người thắng giải sẽ được lựa chọn ngẫu nhiên tại trường đại học Công nghệ Auckland vào ngày 30/11/2017.
8. Người thắng giải sẽ được liên lạc qua email trong vòng bảy ngày sau khi rút thăm.
9. Nếu người thắng giải không trả lời email trong vòng 21 ngày kể từ ngày rút thăm, việc rút thăm sẽ được tổ chức lại trong vòng 30 ngày kể từ ngày rút thăm đầu tiên, tại trường đại học Công nghệ Auckland, với phương pháp rút thăm tương tự như lần đầu. Việc rút thăm lại sẽ tiếp tục được thực hiện giống như lần đầu cho đến khi trao hết giải.
10. Giải thưởng sẽ được nhận tại trường Đại học Ngoại Thương (Việt Nam) vào thời điểm thuận tiện cho người thắng giải. Người thắng giải sẽ chịu toàn bộ chi phí cho việc đến nhận và sử dụng giải thưởng.
11. Quyết định của người tổ chức về người thắng giải là quyết định cuối cùng và không có sự tham gia của bất kì văn bản nào khác.
12. Thông tin cá nhân của người tham gia sẽ được bảo mật nghiêm ngặt và sẽ không bị bán, tái sử dụng, cho thuê mượn, hoặc tiết lộ cho bất kì bên thứ ba nào.

Tuyên bố của người tham gia:

☐ Tôi đồng ý tất cả Điều khoản và Điều kiện tham gia nêu trên.

Địa chỉ email của người tham gia:

SUBMIT

Appendix H. Experimental design of Study 2 (English translation)

Step 1: Participants read the Participant Information Sheet

An Invitation

Kia ora! My name is Truong Hoang Anh Tho and I am a Ph.D. student at the Department of Marketing, Advertising, Retailing and Sales in AUT University. I am conducting a research on evaluations of advertisements of eco-friendly products for my thesis. I would like to invite you to participate in this research.

What will happen in this research?

First, you will see an advertisement of an eco-friendly product. Then, you will be asked to answer questions regarding this advertisement.

How do you agree to participate in this research?

Please click on the “NEXT” button at the bottom of the page. Completion of the questionnaire will be taken as indicating your consent to participate.

How will your privacy be protected?

The information obtained from the questionnaire will remain confidential. Your name will not be recorded and you will remain anonymous.

What do you do if you have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Sommer Kapitan at sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz , 921 9999 ext 6038.

Whom do you contact for further information about this research?

You are also able to contact the research team as follows:

Project Supervisor: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Primary Researcher: Truong Hoang Anh Tho, becky.truong@aut.ac.nz, +64220483918.

Approved by the Auckland University of Technology Ethics Committee on 27 June 2017, AUTEK Reference number 17/200.

Step 2: All participants answered the following screening questions

Are you Vietnamese? ☐ Yes ☐ No

In which of these age groups do you come into?

☐ Under 18 years

☐ 18 – 22 years

☐ 23 – 30 years

☐ 31 – 38 years

☐ 39 – 46 years

☐ 47 – 54 years

☐ 55 – 62 years

☐ Over 62 years

Please specify your gender: ☐ Male ☐ Female

Step 3: Manipulation of cognitive resources

Qualified participants were randomly divided into 2 groups.

➤ *Instruction for participants in group 1:*

Please memorize this number and do not record the number elsewhere: **94658952**. You will be asked to write down this number after completing all questions given.

➤ *Instruction for participants in group 2:*

Let's check if the device you are using can display pictures clearly. Please click on the photos with cats. The NEXT button will appear after 15 seconds.



Step 4: Participants read the advertisement and answer questions

Please take a moment to look at the following advertisement and answer the corresponding questions by ticking the options which best reflect your own opinion.



Section 1: I found the message in the advertisement to be

Extremely unconvincing	Quite unconvincing	Slightly unconvincing	Neutral	Slightly convincing	Quite convincing	Extremely convincing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely biased	Quite biased	Slightly biased	Neutral	Slightly unbiased	Quite unbiased	Extremely unbiased
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely unbelievable	Quite unbelievable	Slightly unbelievable	Neutral	Slightly unbelievable	Quite unbelievable	Extremely unbelievable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 2: What do you think about the brand Greenlife? Please indicate your agreement or disagreement with the statements below by ticking the options which best reflect your own opinion.

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
The brand Greenlife reminds me of someone who's competent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand Greenlife has the ability to deliver what it promises.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand Greenlife delivers what it promises.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand Greenlife's product claims are believable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Over time, my experiences with the brand Greenlife have led me to expect it to keep its promises, no more and no less.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand Greenlife has a name you can trust.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand Greenlife doesn't pretend to be something it isn't.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 3: Please indicate your agreement or disagreement with the statements below

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
While reading this advertisement, I thought about the meaning of the message of the message about Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I analyzed the message about Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I evaluated the message about Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to influence my opinion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to make me like Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to sell eco-friendly laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to stimulate the sales of eco-friendly laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 4: Please indicate your agreement or disagreement with the statements below

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
If I were to need an eco-friendly laundry detergent, this advertisement would persuade me to purchase brand Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My general reaction to this advertisement is positive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my personal preference, this advertisement is effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After looking at this advertisement, I feel that the image of brand Greenlife is strong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This advertisement helps the image of brand Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase <i>"Your next step towards a better environment"</i> impactful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I find the phrase “ <i>Your next step towards a better environment</i> ” effective in persuading me to purchase Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Section 5: Please indicate your agreement or disagreement with the statements below

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
My mind was occupied with other thoughts as I look at this advertisement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I found it hard to concentrate on this advertisement alone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 6: Please indicate your agreement or disagreement with the statements below

1 = Strongly disagree, 7 = Strongly agree	1	2	3	4	5	6	7
I know the products of the brand Greenlife very well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In general, I know a lot about the brand Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can describe the brand Greenlife to others in detail.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 7: On a scale of 1 to 7, how much do you know about the impact of the following green products on environmental protection? 1- know nothing about, 7 - know a great deal about.

	Know nothing about						Know a great deal about
	1	2	3	4	5	6	7
1. Recycled paper products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Products not tested on animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Green laundry detergents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Green cleaning products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Ozone friendly aerosols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Unleaded petrol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Energy saving appliances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Products in recycled/recyclable packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Compostable nappies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 8: In this final section, please tell us a little bit about you. **How often** do these events actually occur or have occurred in your life? Please indicate your answer to each question by choosing the appropriate number below it.

1 = Never or seldom, 7 = Very often	1	2	3	4	5
Compared to most people, are you typically unable to get what you want out of life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often have you accomplished things that got you “psyched” to work even harder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did you get on your parents’ nerves often when you were growing up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often did you obey rules and regulations that were established by your parents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing up, did you ever act in ways that your parents thought were objectionable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you often do well at different things that you try?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not being careful enough has gotten me into trouble at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I have made progress toward being successful in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 9: Demographics

How many children do you have?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ More than 4

What is your highest education level?

- ☐ School Certificate/NCEA Level 1
- ☐ Sixth Form Certificate/NCEA Level 2
- ☐ Bursary/NCEA Level 3
- ☐ Tertiary Certificate
- ☐ Tertiary Diploma (Polytechnic or University)
- ☐ Bachelor's Degree
- ☐ Postgraduate Degree

What is your annual income range?

- ☐ Below \$20,000
- ☐ \$20,000 - \$29,999
- ☐ \$30,000 - \$39,999
- ☐ \$40,000 - \$49,999
- ☐ \$50,000 - \$59,999
- ☐ \$60,000 - \$69,999
- ☐ \$70,000 - \$79,999
- ☐ \$80,000 - \$89,999
- ☐ \$90,000 or more

Step 5: Manipulation check

Participants in group 1 were asked to do an additional task: "Please write down the number you are asked to memorize at the beginning of this survey:

....."

End of the experiment. All participants were thanked for participating in the experiment.

Appendix I. Experimental design of Study 2 (Vietnamese version)

Bước 1: Người tham gia đọc Phiếu thông tin dành cho người tham gia

Thư mời

Chào bạn! Tôi tên là Trương Hoàng Anh Thơ, hiện đang là nghiên cứu sinh tại khoa MARS, trường đại học công nghệ Auckland (New Zealand). Hiện tại tôi đang nghiên cứu về đánh giá của người tiêu dùng đối với quảng cáo các sản phẩm thân thiện với môi trường và tôi muốn mời bạn tham gia vào nghiên cứu này.

Bạn sẽ làm gì nếu tham gia vào nghiên cứu này?

Đầu tiên bạn sẽ xem một quảng cáo của sản phẩm thân thiện với môi trường. Sau đó, bạn sẽ trả lời các câu hỏi liên quan đến mẫu quảng cáo này.

Bạn sẽ thể hiện việc đồng ý tham gia vào nghiên cứu này bằng cách nào?

Nhấn vào nút “Tiếp tục” ở cuối màn hình. Việc hoàn thành bản khảo sát được xem là một hình thức đồng ý tham gia khảo sát

Những thông tin cá nhân của bạn sẽ được bảo vệ như thế nào?

Những thông tin thu thập được từ bảng khảo sát sẽ được bảo mật. Tên của bạn sẽ không bị ghi lại và bạn sẽ được ẩn danh.

Bạn sẽ làm gì nếu có những lo ngại về nghiên cứu này?

Nếu bạn có những lo ngại về bản chất của nghiên cứu này, vui lòng liên lạc người hướng dẫn dự án: Tiến sĩ Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Nếu bạn có những lo ngại về cách thực hiện nghiên cứu này, vui lòng liên lạc thư ký điều hành của AUTC: Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Nếu bạn muốn biết thêm thông tin về nghiên cứu, bạn cần liên hệ người nào?

Bạn có thể liên lạc các thành viên của nghiên cứu này theo địa chỉ:

Người hướng dẫn dự án: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Người nghiên cứu chính: Trương Hoàng Anh Thơ, becky.truong@aut.ac.nz, +64220483918.

Khảo sát này được thông qua bởi Hội đồng bảo vệ đạo đức nghiên cứu Đại học công nghệ Auckland vào ngày 27/6/2017, số tham chiếu 17/200.

Bước 2: Tất cả người tham gia trả lời câu hỏi sàng lọc sau

Bạn có phải là người Việt Nam không? ☐ Phải ☐ Không phải

Bạn thuộc nhóm tuổi nào?

☐ Dưới 18 tuổi

☐ 18 – 22 tuổi

☐ 23 – 30 tuổi

☐ 31 – 38 tuổi

☐ 39 – 46 tuổi

☐ 47 – 54 tuổi

☐ 55 – 62 tuổi

☐ Trên 62 tuổi

Giới tính của bạn là: ☐ Nam ☐ Nữ

Bước 3: Điều khiển tài nguyên nhận thức

Những người đủ điều kiện tham gia được chia thành 2 nhóm một cách ngẫu nhiên.

➤ *Hướng dẫn dành cho nhóm 1:*

Vui lòng ghi nhớ con số sau đây và không ghi chép lại con số này: **94658952**. Bạn sẽ được yêu cầu ghi lại con số này sau khi hoàn thành tất cả các câu hỏi.

➤ *Hướng dẫn dành cho nhóm 2:*

Hãy kiểm tra xem thiết bị bạn đang sử dụng có hiển thị hình ảnh rõ nét không bằng cách chọn những hình có con mèo dưới đây. Nút TIẾP TỤC sẽ hiển thị sau 15 giây.



Bước 4: Người tham gia đọc mẫu quảng cáo và trả lời câu hỏi

Vui lòng xem mẫu quảng cáo sau và chọn phương án thể hiện đúng nhất ý kiến của bạn.



Phần 1: Bạn cảm thấy thông điệp trong hình quảng cáo

Hoàn toàn không thuyết phục <input type="checkbox"/>	Không thuyết phục <input type="checkbox"/>	Hơi không thuyết phục <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi thuyết phục <input type="checkbox"/>	Thuyết phục <input type="checkbox"/>	Hoàn toàn thuyết phục <input type="checkbox"/>
Hoàn toàn phiến diện <input type="checkbox"/>	Phiến diện <input type="checkbox"/>	Hơi phiến diện <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi không phiến diện <input type="checkbox"/>	Không phiến diện <input type="checkbox"/>	Hoàn toàn không phiến diện <input type="checkbox"/>
Hoàn toàn không đáng tin <input type="checkbox"/>	Không đáng tin <input type="checkbox"/>	Hơi không đáng tin <input type="checkbox"/>	Trung lập <input type="checkbox"/>	Hơi đáng tin <input type="checkbox"/>	Đáng tin <input type="checkbox"/>	Rất đáng tin <input type="checkbox"/>

Phần 2: Vui lòng chọn phương án thể hiện đúng nhất ý kiến của bạn

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Greenlife gợi cho bạn hình ảnh một người có năng lực và biết mình đang làm gì.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenlife có khả năng đem lại cho người tiêu dùng những gì thương hiệu này cam kết.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenlife đang đem lại cho người tiêu dùng những gì thương hiệu này cam kết	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Những sản phẩm của Greenlife đáng tin cậy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Những trải nghiệm của bạn với Greenlife khiến bạn kì vọng thương hiệu này sẽ đem lại những gì mà nó đã cam kết.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenlife là một thương hiệu bạn có thể tin tưởng được.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenlife không lừa dối khách hàng.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 3: Vui lòng chọn phương án thể hiện đúng nhất ý kiến của bạn

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Khi đọc mẫu quảng cáo này, bạn đã nghĩ về ý nghĩa của thông điệp mà Greenlife truyền tải.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc mẫu quảng cáo này, bạn đã phân tích những chi tiết về Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc mẫu quảng cáo này, bạn đã đánh giá những chi tiết về Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để gây ảnh hưởng đến suy nghĩ của bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này để khiến bạn thích Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của mẫu quảng cáo này là để kích thích việc bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 4: Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Nếu bạn cần mua một chai nước giặt thân thiện với môi trường giống như loại nước giặt được giới thiệu trong quảng cáo này thì việc đọc quảng cáo này có thể thuyết phục bạn mua nước giặt hiệu Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nhìn chung thì phản ứng của bạn đối với mẫu quảng cáo này là bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy mẫu quảng cáo này hiệu quả, bất kể sở thích của bạn là như thế nào.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sau khi đọc mẫu quảng cáo này, bạn cảm nhận hình ảnh của thương hiệu Greenlife rất vững chắc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mẫu quảng cáo này giúp xây dựng hình ảnh thương hiệu Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bạn cảm thấy thông điệp “ <i>Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn</i> ” có tác động mạnh mẽ.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy thông điệp “ <i>Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn</i> ” có hiệu quả trong việc thuyết phục bạn mua sản phẩm Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 5: Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Bạn đã bị phân tâm trong lúc nhìn áp phích quảng cáo vừa rồi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy khó tập trung toàn bộ tâm trí vào áp phích quảng cáo vừa rồi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 6: Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5	6	7
Bạn biết rất nhiều về sản phẩm của Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nhìn chung, bạn biết nhiều về thương hiệu Greenlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn có thể mô tả về Greenlife cho mọi người mà không gặp khó khăn gì.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 7: Hãy đánh giá mức độ bạn biết về vai trò của những sản phẩm sau đối với việc bảo vệ môi trường theo thang đo từ 1 đến 7, với 1 - hoàn toàn không biết gì và 7- biết rất rõ.

	Không biết gì cả						Biết rất nhiều
	1	2	3	4	5	6	7
Giấy có khả năng tái chế	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sản phẩm không thử nghiệm trên động vật	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bột giặt thân thiện với môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sản phẩm tẩy rửa thân thiện với môi trường	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khí phun thân thiện với tầng ozon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Xăng không chì	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thiết bị điện tử tiết kiệm năng lượng	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bao bì có khả năng tái chế	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tã có khả năng tự phân hủy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 8: Hãy cho tôi biết một chút về bạn. Những sự việc sau **có thường xảy ra** từ lúc bạn trở thành người lớn đến nay không?

1 = Hoàn toàn không đồng ý, 7 = Hoàn toàn đồng ý	1	2	3	4	5
So với nhiều người khác, bạn không có khả năng đạt được những gì bạn muốn trong cuộc sống.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn làm những việc mà ba mẹ bạn không chấp nhận được.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn đạt được những thứ khiến bạn phấn khích và muốn làm việc chăm chỉ hơn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn làm ba mẹ bạn bực bội.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn tuân theo những phép tắc và quy định do ba mẹ đặt ra.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cách bạn cư xử khiến bạn bị ba mẹ chê trách.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi thử làm/học những thứ mới lạ, bạn thường làm/học tốt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Việc làm việc thiếu cẩn thận đôi khi đã khiến bạn gặp rắc rối.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn thường không làm hết sức mình để đạt được những thứ quan trọng với bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy rằng bạn đang tiến dần đến sự thành công trong cuộc sống.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn nghĩ rằng trên đời này có rất ít sở thích/hoạt động có thể khiến bạn thích thú đến mức bạn sẽ nỗ lực theo đuổi sở thích/hoạt động đó.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phần 9: Câu hỏi về nhân khẩu học

Bạn có bao nhiêu đứa con?

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ Hơn 4

Trình độ học vấn cao nhất của bạn là gì?

- ☐ Tiểu học
- ☐ Trung học cơ sở
- ☐ Trung học phổ thông
- ☐ Trung cấp
- ☐ Cao đẳng
- ☐ Đại học
- ☐ Sau đại học

Thu nhập hàng tháng của bạn nằm trong khoảng nào?

- ☐ Dưới 5 triệu VNĐ
- ☐ 5 triệu VNĐ - 9.99 triệu VNĐ
- ☐ 10 triệu VNĐ - 14.99 triệu VNĐ
- ☐ 15 triệu VNĐ - 19.99 triệu VNĐ
- ☐ 20 triệu VNĐ - 24.99 triệu VNĐ
- ☐ 25 triệu VNĐ trở lên

Bước 5: Kiểm tra việc điều khiển tài nguyên nhận thức

Người tham gia trong nhóm 1 được yêu cầu làm thêm một nhiệm vụ: “Vui lòng ghi lại con số bạn được yêu cầu ghi nhớ trước khi bắt đầu bảng khảo sát:”

Kết thúc thí nghiệm. Tất cả người tham gia được cảm ơn.

Appendix J. Experimental design of Study 3 (English version)

Step 1: Participants read the Participant Information Sheet

An Invitation

Kia ora! My name is Truong Hoang Anh Tho and I am a Ph.D. student at the Department of Marketing, Advertising, Retailing and Sales in AUT University. I am conducting a research on evaluations of advertisements of eco-friendly products for my thesis. I would like to invite you to participate in this research.

What will happen in this research?

First, you will see an advertisement of an eco-friendly product. Then, you will be asked to answer questions regarding this advertisement.

How do you agree to participate in this research?

Please click on the “NEXT” button at the bottom of the page. Completion of the questionnaire will be taken as indicating your consent to participate.

How will your privacy be protected?

The information obtained from the questionnaire will remain confidential. Your name will not be recorded and you will remain anonymous.

What do you do if you have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Sommer Kapitan at sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do you contact for further information about this research?

You are also able to contact the research team as follows:

Project Supervisor: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Primary Researcher: Truong Hoang Anh Tho, becky.truong@aut.ac.nz, +64220483918.

Approved by the Auckland University of Technology Ethics Committee on 27 June 2017, AUTEK Reference number 17/200.

Step 2: All participants answered the following screening questions

Are you a New Zealand undergraduate student? ☐ Yes ☐ No

Are you 18-24 years old? ☐ Yes ☐ No

Step 3: Qualified participants were randomly divided into 2 groups. Each participant in both groups were given a piece of paper which consists of a random code (e.g. 001, 025). Then, participants in each group were given one of two versions of the following advertisement:

Promotion-framed advertisement



Prevention-framed advertisement



Step 4: Participants were asked to answer the following questionnaire



ECO-FRIENDLY ADVERTISEMENT SURVEY

Thank you for participating in this survey. The purpose of this survey is to help design an advertisement for an eco-friendly brand. Your participation in this research is entirely voluntary and there are no right or wrong answers. You may withdraw from this research at any time, without any adverse consequences. It will take about 5 minutes to complete.

Instructions

You were given an advertisement of the fictional eco-friendly brand A. After looking at the advertisement, please choose the response most relevant to you based on your thoughts.

It is important that you **do not turn the page until you are told to do so**. Also, **please do not talk to each other during the experiment**.

STOP HERE

Please take a moment to look at the given advertisement.



PLEASE STOP HERE. DO NOT TURN THE PAGE UNTIL INSTRUCTED TO DO SO

Section 1. On a scale of 1 to 7 (1 = strongly disagree, 7 = strongly agree), please indicate your agreement or disagreement with the following statements by ticking the relevant box below:

	Strongly disagree 1	Disagree 2	Somewhat disagreed 3	Neutral 4	Somewhat agree 5	Agree 6	Strongly agree 7
If I were to need an eco-friendly laundry liquid, this advertisement would persuade me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My general reaction to this advertisement is positive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my personal preference, this advertisement is effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After looking at this advertisement, I feel that the image of brand A is strong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This advertisement helps the image of brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase “ <i>Your next step towards a better environment</i> ” impactful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find the phrase “ <i>Your next step towards a better environment</i> ” effective in persuading me to purchase brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE TURN TO THE NEXT PAGE

Note: For those who were given the prevention-framed advertisement, the phrase in the last two questions are “*Protect the environment*”.

Section 2. On a scale of 1 to 7, I found the message in the advertisement to be:

	1	2	3	4	5	6	7	
Extremely unconvincing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely convincing

	1	2	3	4	5	6	7	
Extremely biased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely unbiased

	1	2	3	4	5	6	7	
Extremely unbelievable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely believable

PLEASE TURN TO THE NEXT PAGE

Section 3. On a scale of 1 to 7 (1 = strongly disagree, 7 = strongly agree), please indicate your agreement or disagreement with the statements below:

	Strongly disagree 1	Disagree 2	Somewhat disagreed 3	Neutral 4	Somewhat agree 5	Agree 6	Strongly agree 7
While reading this advertisement, I thought about the meaning of the message about brand A carefully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I analyzed the message about brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While reading this advertisement, I evaluated the message about brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to influence my opinion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to make me like brand A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to sell natural laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The aim of this advertisement is to stimulate the sales of natural laundry detergent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE TURN TO THE NEXT PAGE

Section 4. In this final section, please tell us a little bit about you. How often do these events actually occur or have occurred in your life?

	Never or seldom 1	2	Sometimes 3	4	Very often 5
Compared to most people, are you typically unable to get what you want out of life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often have you accomplished things that got you “psyched” to work even harder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did you get on your parents’ nerves often when you were growing up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often did you obey rules and regulations that were established by your parents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing up, did you ever act in ways that your parents thought were objectionable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Never or seldom 1	2	Sometimes 3	4	Very often 5
Do you often do well at different things that you try?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not being careful enough has gotten me into trouble at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I have made progress toward being successful in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is your gender?

What is your age?

What is your nationality?

END OF THE QUESTIONNAIRE

Step 5: Behavioral intent measure

After participants finish the questionnaire, all of them were shown the blow-up version of two advertisements below. They were asked to “vote” for the more effective advertisement by putting his/her piece of paper (with the code) into one of the two boxes below the two advertisements.



Step 6: Participants read the Prize Entry Form

All participants were given two copies of the Prize Entry Form. Those who agreed to all the terms and conditions of the prize draw had to write their email address on the Prize Entry Form and gave the form to the primary researcher. They kept one copy of the Prize Entry Form.

Prize Draw

Thank you for taking the time to participate in this study. You are eligible to enter the prize draw to win a \$50 Countdown gift card. To enter the prize draw, **please accept the Terms and Conditions of Entry below by providing your email address in the previous page.**

Terms and Conditions of Entry:

1. There are 2 Countdown gift cards (NZD50 each) to be won in total. The prize is not transferable, refundable, exchangeable, and cannot be taken as cash.
2. To enter the prize draw, the entrant must:
3. Participate in the study.
4. Accept the Terms and Conditions of Entry, provide the email address, and vote for the most credible advertisement.
5. Entry to the prize draw is voluntary and you may withdraw from this draw at any time, without any adverse consequences.
6. The draw will be by random barrel draw from all eligible entries received with the first two entries drawn being the prize winners.
7. The prize winners will be selected by random draw which will take place at AUT on 02 May 2018.
8. The prize winners will be contacted within seven days of the draw by the email address supplied by the entrants.
9. If the prize winner does not respond to claim the prize within 21 days of the draw, a re-draw will be conducted within 30 days of the original draw date, in the same location, and with the same method. Redraws will continue in the same manner until all prizes have been claimed by the prize winners.
10. The prize will be available for collection at AUT for AUT's students, at a time organized as suitable for the winners. The prize winner will be responsible for all costs associated with collecting and using the prize.
11. The Promoter's decision regarding the winners is final and no correspondence will be entered into.
12. Personal information collected will be kept strictly confidential and will not be sold, reused, rented, loaned or disclosed to any third party.

A declaration by the entrant:

By providing my email address, I agree to all the terms and conditions specified above.

Entrant's email address:

Appendix K. Experimental design of Study 3 (Vietnamese version)

Bước 1: Người tham gia đọc Phiếu thông tin dành cho người tham gia

Thư mời

Chào bạn! Tôi tên là Trương Hoàng Anh Thơ, hiện đang là nghiên cứu sinh tại khoa MARS, trường đại học công nghệ Auckland (New Zealand). Hiện tại tôi đang nghiên cứu về đánh giá của người tiêu dùng đối với quảng cáo các sản phẩm thân thiện với môi trường và tôi muốn mời bạn tham gia vào nghiên cứu này.

Bạn sẽ làm gì nếu tham gia vào nghiên cứu này?

Đầu tiên bạn sẽ xem một quảng cáo của sản phẩm thân thiện với môi trường. Sau đó, bạn sẽ trả lời các câu hỏi liên quan đến mẫu quảng cáo này.

Bạn sẽ thể hiện việc đồng ý tham gia vào nghiên cứu này bằng cách nào?

Nhấn vào nút “Tiếp tục” ở cuối màn hình. Việc hoàn thành bản khảo sát được xem là một hình thức đồng ý tham gia khảo sát

Những thông tin cá nhân của bạn sẽ được bảo vệ như thế nào?

Những thông tin thu thập được từ bảng khảo sát sẽ được bảo mật. Tên của bạn sẽ không bị ghi lại và bạn sẽ được ẩn danh.

Bạn sẽ làm gì nếu có những lo ngại về nghiên cứu này?

Nếu bạn có những lo ngại về bản chất của nghiên cứu này, vui lòng liên lạc người hướng dẫn dự án: Tiến sĩ Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Nếu bạn có những lo ngại về cách thực hiện nghiên cứu này, vui lòng liên lạc thư ký điều hành của AUTECH: Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Nếu bạn muốn biết thêm thông tin về nghiên cứu, bạn cần liên hệ người nào?

Bạn có thể liên lạc các thành viên của nghiên cứu này theo địa chỉ:

Người hướng dẫn dự án: Dr Sommer Kapitan, sommer.kapitan@aut.ac.nz, +649 9219999 ext 5131.

Người nghiên cứu chính: Trương Hoàng Anh Thơ, becky.truong@aut.ac.nz, +64220483918.

Khảo sát này được thông qua bởi Hội đồng bảo vệ đạo đức nghiên cứu Đại học công nghệ Auckland vào ngày 27/6/2017, số tham chiếu 17/200.

Bước 2: Tất cả người tham gia trả lời câu hỏi sàng lọc sau

Bạn có phải là sinh viên đại học người Việt Nam? ☐ Phải ☐ Không phải

Bạn từ 18 - 24 tuổi? ☐ Phải ☐ Không phải

Bước 3: Những người đủ điều kiện tham gia sẽ được ngẫu nhiên chia thành 2 nhóm. Mỗi người tham gia trong mỗi nhóm sẽ được phát một mảnh giấy có ghi một con số ngẫu nhiên (ví dụ: 001, 025). Sau đó, người tham gia trong mỗi nhóm sẽ đọc một trong hai phiên bản của mẫu quảng cáo sau:



Bước 4: Người tham gia được yêu cầu trả lời bảng câu hỏi sau



KHẢO SÁT VỀ QUẢNG CÁO SẢN PHẨM THÂN THIỆN VỚI MÔI TRƯỜNG

Cảm ơn bạn đã tham gia khảo sát. Mục đích của khảo sát này là để giúp thiết kế quảng cáo cho một nhãn hàng thân thiện với môi trường. Việc tham gia khảo sát là hoàn toàn tự nguyện và không có câu trả lời đúng hoặc sai. Bạn có thể ngừng tham gia khảo sát bất kì lúc nào bạn muốn. Khảo sát này có độ dài khoảng 5 phút.

Hướng dẫn

Bạn sẽ xem một tờ quảng cáo của thương hiệu A (tên thương hiệu thật đã được thay đổi bằng ký tự A). Sau khi đọc quảng cáo, hãy chọn phương án trả lời thích hợp nhất dựa trên suy nghĩ của bạn về quảng cáo này.

Khi thực hiện khảo sát này, **đừng lật sang trang khi chưa được yêu cầu**. Vui lòng **đừng trao đổi với người ngồi cạnh bạn**.

ĐỪNG LẬT SANG TRANG TIẾP THEO KHI CHƯA ĐƯỢC YÊU CẦU

Hãy dành chút thời gian nhìn mẫu quảng cáo dưới đây.



ĐỪNG LẬT SANG TRANG TIẾP THEO KHI CHƯA ĐƯỢC YÊU CẦU

Phần 1. Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau theo thang đo từ 1 đến 7, với 1 - hoàn toàn không đồng ý và 7- hoàn toàn đồng ý.

	Hoàn toàn không đồng ý 1	Không đồng ý 2	Không đồng ý một phần 3	Trung lập 4	Đồng ý một phần 5	Đồng ý 6	Hoàn toàn đồng ý 7
Nếu bạn cần mua nước giặt thân thiện với môi trường, quảng cáo này có thể thuyết phục bạn mua nước giặt hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phản ứng của bạn đối với quảng cáo này tốt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quảng cáo này hiệu quả.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sau khi đọc quảng cáo này, bạn thấy hình ảnh của thương hiệu A vững chắc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quảng cáo này giúp xây dựng hình ảnh thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thông điệp “ <i>Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn</i> ” có tác động mạnh mẽ đến bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thông điệp “ <i>Hành động tiếp theo của bạn để hướng đến một môi trường tốt đẹp hơn</i> ” có thể thuyết phục bạn mua sản phẩm thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HÃY LẬT SANG TRANG SAU

Lưu ý: Đối với những người tham gia được phát mẫu quảng cáo còn lại, thông điệp trong hai câu hỏi cuối được thay thế bằng “*Bảo vệ môi trường*”

Phần 2. Hãy cho biết cảm nhận của bạn về thông điệp trong quảng cáo vừa rồi theo thang đo từ 1 đến 7:

Hoàn toàn không thuyết phục	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	Hoàn toàn thuyết phục
Rất phiến diện	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	Rất toàn diện
Hoàn toàn không đáng tin	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	Hoàn toàn đáng tin

HÃY LẬT SANG TRANG SAU

Phần 3. Hãy chọn mức độ đồng ý hoặc không đồng ý với những ý kiến sau theo thang đo từ 1 đến 7, với 1 - hoàn toàn không đồng ý và 7- hoàn toàn đồng ý.

	Hoàn toàn không đồng ý 1	Không đồng ý 2	Không đồng ý một phần 3	Trung lập 4	Đồng ý một phần 5	Đồng ý 6	Hoàn toàn đồng ý 7
Khi đọc quảng cáo này, bạn đã nghĩ về ý nghĩa của thông điệp mà thương hiệu A truyền tải.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc quảng cáo này, bạn đã phân tích những chi tiết về thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi đọc quảng cáo này, bạn đã đánh giá những chi tiết về thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của quảng cáo này là để gây ảnh hưởng đến suy nghĩ của bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của quảng cáo này để khiến bạn thích thương hiệu A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của quảng cáo này là để bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mục đích của quảng cáo này là để thúc đẩy doanh số bán nước giặt thân thiện với môi trường.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HÃY LẬT SANG TRANG SAU

Phần 4. Hãy cho tôi biết một chút về bạn. Những sự việc sau CÓ THƯỜNG XẢY RA với bạn không?

	Không bao giờ hoặc rất hiếm 1	2	Thỉnh thoảng 3	4	Rất thường xuyên 5
So với nhiều người khác, bạn có thường không thể đạt được những gì bạn muốn trong cuộc sống?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khi trưởng thành, bạn có làm những việc mà ba mẹ bạn không tha thứ không?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn có thường đạt được những thứ khiến bạn phấn khích và muốn làm việc chăm chỉ hơn không?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Từ lúc trưởng thành, bạn đã từng làm ba mẹ bạn bực bội bao giờ chưa?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn có thường tuân theo những phép tắc và quy định do ba mẹ đặt ra không?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Từ lúc trưởng thành, bạn có bao giờ cư xử theo cách khiến bạn bị ba mẹ chê trách?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Không bao giờ hoặc rất hiếm 1	2	Thỉnh thoảng 3	4	Rất thường xuyên 5
Khi thử làm/học những thứ mới lạ, bạn có thường làm/học tốt không?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Việc làm việc thiếu cẩn thận đôi khi đã khiến bạn gặp rắc rối.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn thường không làm hết sức mình để đạt được những thứ quan trọng với bạn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn cảm thấy rằng bạn đang tiến dần đến sự thành công trong cuộc sống.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bạn nghĩ rằng trên đời này có rất ít sở thích/hoạt động có thể khiến bạn thích thú đến mức bạn sẽ nỗ lực theo đuổi sở thích/hoạt động đó.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Giới tính của bạn là gì?

Quốc tịch của bạn là gì?

Bạn bao nhiêu tuổi?

KẾT THÚC BẢN KHẢO SÁT

Bước 5: Đo lường khuynh hướng hành vi

Sau khi người tham gia hoàn thành bảng câu hỏi, tất cả người tham gia được xem hai mẫu quảng cáo phóng to dưới đây. Người tham gia được yêu cầu bầu chọn mẫu quảng cáo hiệu quả hơn bằng cách cho mảnh giấy có ghi mã số được phát ban đầu vào một trong hai chiếc hộp đặt bên dưới hai mẫu quảng cáo.



Bước 6: Người tham gia đọc biểu mẫu rút thăm trúng thưởng

Tất cả người tham gia được phát hai biểu mẫu rút thăm trúng thưởng. Những người đồng ý tham gia rút thăm phải viết địa chỉ email của mình vào biểu mẫu và đưa một bản biểu mẫu cho người nghiên cứu. Người tham gia giữ bản còn lại của biểu mẫu rút thăm trúng thưởng.

Điều khoản và điều kiện rút thăm trúng thưởng

Cám ơn bạn đã dành thời gian tham gia vào nghiên cứu này. Bạn đủ điều kiện tham gia rút thăm nhằm sở hữu một trong hai phiếu mua sắm tại BigC trị giá 450,000VND. Để tham gia, vui lòng **đồng ý những Điều khoản và Điều kiện tham gia dưới đây bằng cách điền địa chỉ email vào cuối tờ giấy này.**

Điều khoản và Điều kiện tham gia:

1. Tổng cộng có 2 giải thưởng, mỗi giải là 01 phiếu mua sắm trị giá 450,000VND tại siêu thị Coopmart. Giải thưởng không được chuyển nhượng, hoàn lại tiền, đổi lại và không thể thay thế bằng tiền mặt.
2. Để tham gia rút thăm, người tham gia phải:
 - Hoàn thành bảng khảo sát về quảng cáo sản phẩm thân thiện với môi trường.
 - Đồng ý Điều khoản và Điều kiện tham gia bằng cách cung cấp địa chỉ email, và bỏ phiếu bầu chọn mẫu quảng cáo bạn cảm thấy hiệu quả nhất.
3. Việc tham gia rút thăm trúng thưởng là tự nguyện và việc đăng ký tham gia rút thăm đồng nghĩa với việc người tham gia đồng ý với tất cả điều khoản và điều kiện tham gia.
4. Giải thưởng sẽ được quyết định bằng cách rút thăm ngẫu nhiên từ những phiếu bầu hợp lệ, chủ nhân của hai phiếu bầu được rút thăm đầu tiên là người chiến thắng.
5. Người thắng giải sẽ được lựa chọn ngẫu nhiên tại trường đại học Công nghệ Auckland (New Zealand) vào ngày 30/4/2018.
6. Người thắng giải sẽ được liên lạc qua email trong vòng bảy ngày sau khi rút thăm.
7. Nếu người thắng giải không trả lời email trong vòng 21 ngày kể từ ngày rút thăm, việc rút thăm sẽ được tổ chức lại trong vòng 30 ngày kể từ ngày rút thăm đầu tiên, tại trường đại học Công nghệ Auckland, với phương pháp rút thăm tương tự như lần đầu. Việc rút thăm lại sẽ tiếp tục được thực hiện giống như lần đầu cho đến khi trao hết giải.
8. Giải thưởng sẽ được nhận tại trường Đại học Ngoại Thương vào thời điểm thuận tiện cho người thắng giải. Người thắng giải sẽ chịu toàn bộ chi phí cho việc đến nhận và sử dụng giải thưởng.
9. Quyết định của người tổ chức về người thắng giải là quyết định cuối cùng và không có sự tham gia của bất kì văn bản nào khác.
10. Thông tin cá nhân của người tham gia sẽ được bảo mật nghiêm ngặt và sẽ không bị bán, tái sử dụng, cho thuê mượn, hoặc tiết lộ cho bất kì bên thứ ba nào.

Tuyên bố của người tham gia:

☐ Tôi đồng ý tất cả Điều khoản và Điều kiện tham gia nêu trên.

Địa chỉ email của người tham gia:

Appendix L1. Ethics Approval



AUTEC Secretariat

Auckland University of Technology
D-88, WU406 Level 4 WU Building City Campus
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

28 June 2017

Sommer Kapitan
Faculty of Business Economics and Law

Dear Sommer

Re Ethics Application: **17/200 Antecedents of green ad credibility**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Subcommittee (AUTEC).

Your ethics application has been approved for three years until 27 June 2020.

Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: <http://www.aut.ac.nz/researchethics>.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries, please contact ethics@aut.ac.nz

Yours sincerely,



Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: becky.truong@aut.ac.nz; mark.glynn@aut.ac.nz