

# A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviours

---

A thesis submitted in partial fulfilment of the  
requirements for the Degree

of

Master of Commerce in Marketing

in the University of Canterbury

by

Wenjing Zhen

---

Department of Marketing, Management and  
Entrepreneurship

University of Canterbury

2016

## Table of Contents

ACKNOWLEDGEMENTS .....	I
ABSTRACT .....	II
Chapter 1 Introduction.....	1
1.1 Background.....	1
1.2 Aims .....	3
1.3 Thesis Structure .....	3
Chapter 2 Literature Review .....	5
2.1 Defining Green .....	5
2.2 Theory of Reasoned Action and Theory of Planned Behaviour .....	6
2.3 Factors Influencing Attitude and Behaviour.....	11
2.3.1 Education and Environmental Knowledge .....	11
2.3.2 Environmental Affect (Emotions and Feelings).....	13
2.3.3 Values and Concerns .....	14
2.3.4 Locus of Control.....	15
2.3.5 Life Experience .....	16
2.3.6 Demographics.....	17
2.3.7 Motivation .....	18
2.3.8 Price.....	20
2.4 Culture Comparison.....	21
2.5 The Importance of Green Consumers .....	26
2.6 Literature Review Summary .....	29
Chapter 3 Methodology .....	31
3.1 Aims and Research Questions .....	31
3.2 Qualitative Methodology .....	31
3.2.1 Grounded Theory .....	31
3.2.2 Multiple In-depth Interviews.....	32
3.3 Selection of Informants .....	33
3.4 Locating Informants .....	35
3.5 Data Management.....	37
3.6 Data Analysis .....	38
3.7 Ethical Considerations .....	41

Chapter 4 Findings.....	42
4.1 Demographic Summary .....	42
4.2 Knowledge.....	44
4.2.1 Family Influence .....	45
4.2.2 Media Influence.....	46
4.3 Important Life Events .....	47
4.3.1 Education.....	47
4.3.2 Health Concerns .....	49
4.3.3 Overseas Travel .....	49
4.3.4 Control of One’s Environment.....	50
4.4 Awareness .....	51
4.5 Emotions.....	51
4.6 Attitude .....	52
4.7 Actual Behaviour .....	52
4.7.1 Practicing Green Behaviours .....	52
4.7.2 Purchasing Green Products .....	53
4.8 Motivation .....	53
4.8.1 Environmental Concern.....	53
4.8.2 Personal Benefits.....	54
4.8.3 Environmental Obligation and Responsibility .....	58
4.9 Consumption Barriers.....	59
4.10 Consumption Strategies .....	60
4.10.1 Information Search.....	60
4.10.2 Labels.....	62
4.10.3 Packaging.....	63
4.10.4 Brand .....	64
4.10.5 Price Handling.....	65
4.10.6 Trusted Place .....	68
4.11 Repetitive Purchasing Reasons .....	68
4.11.1 Requisite Condition .....	68
4.11.2 Complementary Reasons.....	70
Chapter 5 Discussion and Conclusion.....	73
5.1 Introduction.....	73
5.2 Key Findings.....	73

5.2.1 Green Consumer Consumption Model .....	73
5.2.2 Nature of Green Consumer Attitude and Behaviour .....	75
5.2.3 Cultural Comparison.....	88
5.3 Conclusion .....	91
5.4 Research Implications .....	94
5.4.1 Theoretical Implications .....	94
5.4.2 Managerial Implications .....	94
5.5 Research Limitations .....	96
5.6 Future Research .....	97
REFERENCES .....	100
APPENDICES.....	115
Appendix 1: Interview Protocol.....	115
Appendix 2: Human Ethics Committee Approval .....	116
Appendix 3: Print Advertising.....	117
Appendix 4: e-Advertising .....	118
Appendix 5: Information Sheet .....	119
Appendix 6: Consent Form .....	120
Appendix 7: Transcribed Interviews Duration Summary .....	121

## ACKNOWLEDGEMENTS

First and foremost, I would like to express my deepest gratitude to my supervisors. I would like to thank my supervisor Associate Professor Lucie Kathleen Ozanne for her dedication towards this thesis. Her assistance throughout this thesis writing process has been very helpful and important. I am very appreciated for her valuable comments, feedback and continued support. I would also like to thank my co-supervisor Associate Professor Ekant Veer. His valuable advice, suggestions and explanations on concepts and theories are very important for me to understand things better and make continuous improvements. Thanks Lucie, thanks Ekant, for believing in me and encouraging me all the way. Without your guidance and encouragement, this thesis would not have been possible.

I would also like to thank the Masters Class of 2015. It has been a great experience studying with a great group of people in the postgraduate office and having lunch break chatting in the sun. Thanks for organising all the dining out, pot luck, day hiking, and many other activities. It has been a great time. Congratulations to you all, and wish you all the best for the future.

I would also like to thank for all the participated green consumers for taking interviews in this research; several have given me advice on prospective participants, which reduced my struggle during the recruitment process.

Also, I would like to thank all my friends for giving me advice taking this degree, and it was worth well the journey. Thanks for all the motivational messages and constant encouragement all the way. Especially my friend and flatmate Qing, thanks for all the rides, dinner deliveries, and your inspiration.

Finally, I would like to thank my parents, who are my pillars of strength. Without their support and love, I would not have enrolled in this Master program and get to this point. Also, thanks to my sister, brother, sister-in-law, and niece, I feel blessed and grateful to have such a lovely family.

## ABSTRACT

In recent years, environmental issues are raising public awareness around the globe, such as finite resources, climate change, destroyed eco-systems, pollutions, and toxic waste (World Bank, 2015b). People have seen and recognised the direct impact on the environment from their consumption behaviour and activities (Gan, Wee, Ozanne, & Kao, 2008). Also, researchers have conducted valuable scientific studies and suggested a change of current unsustainable consumption to reduce the negative impact for future well-being (European Environment Agency, 2015). Most prior research has focused on general consumer behaviour, behavioural intentions, and willingness to pay; or they have focused on green consumer behaviour for a single behaviour type or single product category in more-developed economies. A gap exists in the literature with regards to understanding green consumers' attitudes and actual behaviours, and understanding consumers from outside the developed Western cultures.

The aim of this research is to explore and compare green consumers' pro-environmental attitudes and actual behaviours, including both New Zealand and Chinese green consumers. An exploratory qualitative and grounded theory approach were adopted. Twenty green consumers were interviewed in Christchurch for this research, and their pro-environmental activities and green purchasing behaviour were investigated. This study found two influencers affect consumers' attitudes; they are important life events and knowledge. Three motivational factors were identified; they are the environmental concern, personal benefits, and a sense of environmental responsibility and obligation. Several consumption barriers and strategies were explored in relation to green purchasing behaviour. The motivation for repetitive purchasing behaviour was also explored. A Green Consumer Consumption Model was developed and provided. In addition, several cultural differences were found between New Zealand and Chinese green consumers. This research contributes to consumer behaviour and green marketing literature. Also, this research could provide practical insights for manufacturers, green marketers, and policymakers; those insights could be used as valuable feedback to help them develop effective marketing strategies and policies and to bring value-return in the long-term view.

## Chapter 1 Introduction

### 1.1 Background

According to Ottman (1993) and Peattie (1992), environmental concerns rose in the 1970s, sparked by studies on the effects of exponential growth on finite resources of the earth. Environmentalism was pulled into the spotlight again in the 1980s when a number of environmental disasters and events occurred (Ottman, 1993; Peattie, 1992), and further environmental concern was raised by the increased media coverage between 1984 and 1988 (Peattie, 1992; Roberts, 1996). As a number of consumer products were significant contributors to environmental deterioration (Kinnear, Taylor, & Ahmed, 1974), environmental sensitivity was primarily manifest in corporate boycotts and the passage of environmental laws during this time (Ottman, 1993).

Consumers can play an important role in sustainable consumption, practices, and lifestyles with fewer environmental impacts (McDonald, Oates, Alevizou, Young, & Hwang, 2012). Consumers have seen the industry playing an important role in major environmental degradation and they have recognised their own contribution, by putting their economic vote to purchase the products of companies with social responsibility and good environmental records, and not those companies who were careless towards the environment (Ottman, 1993). Also, green consumption behaviour is likely to motivate profit-driven enterprises to green their operations and products (Chan, 1999), and environmental protection has been recognised as an accepted corporate strategy (D'Souza, Taghian, Lamb, & Peretiatkos, 2006).

Ottman (1993) reviewed the evidence that consumers' commitment to protect and improve the environment reached the highest in the 1990s by comparing and tracking environment concern since 1970. Especially in the 1990s, there was a rapid growth of environmental concern, and a large number of people were involved in pro-environmental activities, such as recycling (Roberts, 1996). Also, numerous people showed their willingness to buy products from corporations that are attempting to preserve the environment (Hume, Strand, Fisher, Fitzgerald, & Freeman, 1989). However, it turned out they did not buy the products they claimed to prefer (Roberts, 1996). Researchers found that there was an

inconsistency of green buying behaviour, which means there was a positive attitude and purchase intention toward green products, however, the actual purchase behaviour was low (Chan & Lau, 2000; Hume et al., 1989). Many researchers named this phenomenon as the 'words-deeds inconsistency' (Grunert, 1992, as cited in Wagner, 2003; McIntosh, 1991, as cited in Wagner, 2003) or the 'attitude-behaviour gap' (Davari & Strutton, 2014; Hartman & Apaolaza-Ibanez, 2012; Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Prothero et al., 2011; Roberts, 1996; Wong, Turner, & Stoneman, 1996; Young et al., 2010). Based on previous literature, Roberts (1996) found the reasons of the attitude-behaviour gap, which included a higher price, poor quality, inconvenient to purchase, product confusion, claim cynicism, and the unavailability of product types. Researchers found that it would be relatively easy for people to get involved in some daily activities, such as in recycling paper and switching off lights, however, it would be more difficult for them to translate their environmental concern into green product purchase behaviour (Barr & Gilg, 2006).

As the decades have passed, the inconsistency or gap has persisted (Davari & Strutton, 2014; Hartman & Apaolaza-Ibanez, 2012; Hughner et al., 2007; Young et al., 2010), but researchers have identified additional constraints. For instance, the lack of research skills, environmental/ product/ brand knowledge, cognitive capacity, money, or time were found as constraints that impede consumers to go green (Blake, 1999; Chan & Lau, 2000; Fuentes, 2014; Thøgersen, 2005; Young et al., 2010). Fraj-Andrés and Martínez-Salinas (2007) argued such inconsistency maybe because individuals believe their responsibility as a consumer is limited and they can rely on government and economic institutions to take action. Ajzen and Fishbein (1980) (as cited in Wagner, 2003) suggested that methodological issues have led to the gap. They suggested actual behaviour could be explained or predicted only if the attitude is measured toward that behaviour, such as an attitude towards green consumption/ investment, and by then the attitude is considered as a reliable variable (Wagner, 2003).

As outlined above, most studies in the literature have focused on general consumer behaviour, behavioural intentions, willingness to pay, and green consumer behaviour on a single behaviour type and/or product category, in using quantitative studies. A gap also exists in the literature with regards to understanding green consumer attitude and behaviour. Actions speak louder than words. Green consumers are the group that actually and often consumes green products; they have the power to make regular purchase

decisions on environmentally friendly products and brands, and refuse those that are not green or those that they are not satisfied with. Their impact of choices and efforts are important for the environment, policymakers, producers, and green marketers who pursue sustainable development. Therefore, this group of consumers should not be overlooked. This paper adopts a more holistic perspective on green consumer behaviour and a cross-culture perspective, by exploring and comparing New Zealand and Chinese green consumers. It contributes to the consumer behaviour and green marketing literature; also, it could provide practical and in-depth insights for manufacturers, green marketers, and policymakers in both New Zealand and China; and it could help them develop effective marketing strategies and policies and bring value-return in the long-term view.

### 1.2 Aims

The purpose of the present study is two-fold. The first aim of this research is to explore green consumers' pro-environmental attitudes and behaviours, including both New Zealand and Chinese consumers. The second aim of this research is to explore any differences between these two groups to gain a deeper understanding of green consumer behaviour in different cultural contexts.

The research questions that have guided this research are 'what is the nature of consumers' pro-environmental attitudes and behaviours, and what are the differences among those consumers from New Zealand and China?'. A set of further questions include: what do consumers think about the environmental issues and their behaviours; what are the drives behind their green behaviour (why they purchase); how environmentally friendly products are chosen by green consumers (how to choose); and what are the reasons that keep them purchasing those products (why repeat purchases)?

### 1.3 Thesis Structure

This paper is organised in the following way. The next section *Chapter 2 Literature Review* provides a background of green consumer behaviour with key variables identified from prior literature that relate to green consumer behaviour, and how this research comes into place. It is then followed by *Chapter 3 Methodology*, which describes how this research was structured and conducted, by using explorative qualitative and grounded theory approach. It is then followed by *Chapter 4 Findings*, which provides a green informants' profile, and findings on their attitude, motivation, behaviour, consumption barriers,

strategies, and the drivers for repetitive purchases. Lastly, a Green Consumer Consumption Model was developed and provided at the beginning of *Chapter 5 Discussion and Conclusion*. Also, findings of this research are compared to prior literature and discussed in the last section with a summary of key points drawn in the conclusion. In addition, research implications, limitations, and future research opportunities were provided in the last chapter.

## Chapter 2 Literature Review

### 2.1 Defining Green

As Ottman (1993) pointed out, ingredients, technology and laws constantly change, thus making it hard to define 'green'; it is argued that there are no completely green products, as no consumer product has a zero impact on the environment, all products use energy and resources and create waste and pollution. Therefore, according to Ottman (1993), green is a relative concept, describing those products with less negative impact on the environment than alternatives, by conserving energy, resources, and reducing/eliminating use of toxic agents, pollution, and waste. Similar to a recent definition, green products and environmentally friendly products are considered to be the same, "they have a less negative impact on the environment during production, use, and disposal compared to other products (with the same functionality, addressing the same need, etc.)" (European Commission, 2013, p. 6).

In terms of green consumers, as Kinnear et al. (1974) argued, verbal expressions are not enough, and green consumers must indicate a consistent purchasing behaviour. According to Ottman (1993) and Sarkar (2012), green consumers can be defined as those who are very concerned about the environment and therefore, they seek out and purchase products perceived as having relatively minimal impact on the environment. Green products are environmentally friendly, or eco-friendly with little or no packaging, products made from natural ingredients, and products that are made without causing pollution or detriment to environmental quality (Ottman, 1993; Sarkar, 2012). Peattie (1992) summarised some common traits a green person may possess, which include a concern for life on earth/ for future generations/ for other countries and people; a desire to develop sustainable alternatives/ to protect the environment/ to move away from the values of consumption and materialism; for a fairer world and an emphasis on quality of life over material standards of living.

In terms of pro-environmental behaviour, it means consumers would consciously seek to minimise their negative impact (Kollmuss & Agyeman, 2002), and involve consuming in a more sustainable and socially responsible way, which means consuming in a manner

that meets the needs of present generations without compromising the future ones (Cherrier, Szuba, & Özçağlar-Toulouse, 2012; Peattie, 1992). In addition, Peattie (2010) argued that “green might be assumed to relate only to environmental issues, but these are subtly intertwined with the social and economic strands of sustainable development” (p. 197). For instance, other than contributing to social justice, fair-trade standards also cover protecting environmental resources, biodiversity, and promote sustainable farming (Peattie, 2010). Locally sourced products contribute to carbon reduction, and purchasing local food is one of the examples of archetypal pro-environmental behaviours (Peattie, 2010). Hence, the behaviour of purchasing fair-trade and locally sourced products should be embraced as an ethical, sustainable and environmental responsible behaviour (Megicks, Memery, & Angell, 2012; Paco, Alves, Shiel, & Filho, 2013; Riley, Kohlbacher, & Hofmeister, 2012).

The literature review will examine factors that have been found to influence green behaviours. This chapter will begin with a review of the theories of Reasoned Action and Planned Behaviour, which have been found to be useful conceptual frameworks for understanding the factors that influence green behaviours (Ajzen, Joyce, Sheikh, & Cote, 2011; Bamberg, Ajzen, & Schmidt, 2003; Bamberg & Möser, 2007; Bang, Ellinger, Hadjimarcou, & Traichal, 2000; Chan & Bishop, 2013; Coleman, Bahnan, Kelkar, & Curry, 2011; De Leeuw, Valois, Ajzen, & Schmidt, 2015; Kim, Jeong, & Hwang, 2012; Klöckner, 2013; Polonsky, Vocino, Grau, Garma, & Ferdous, 2012).

### **2.2 Theory of Reasoned Action and Theory of Planned Behaviour**

The Theory of Reasoned Action (TRA) (1975) (as cited in Fishbein & Ajzen, 2010) was developed by Fishbein and Ajzen; its extension Theory of Planned Behaviour (TPB) (1985) (as cited in Fishbein & Ajzen, 2010) was introduced by Ajzen. These two theories have been widely used for explaining and understanding human behaviours.

The TRA examines the interrelationships among attitudes, intentions and behaviour (Coleman et al., 2011; Schiffman, O’Cass, Paladino, & Carlson, 2014). According to the TRA, behaviour is determined by an individual’s intention to perform the behaviour, and the intention is in turn influenced by attitude and subjective norm. Thus, “the stronger the intention, the more likely it is that the behaviour will be carried out” (Fishbein & Ajzen, 2010, p. 21).

An attitude is “a latent disposition or tendency to respond with some degree of favourableness or unfavourableness to a psychological object” (Fishbein & Ajzen, 2010, p. 76). According to the theory, an attitude is assumed to have two components that work together, a person’s “beliefs about the likely consequences of performing the behaviour” (behavioural beliefs) (Ajzen, 1991, as cited in De Leeuw et al., 2015, p. 129) and “the corresponding positive or negative judgements about each of these features of the behaviour” (outcome evaluations) (Silva, Figueiredo, Hogg, & Sottomayor, 2014, p. 835). Thus, an attitude reflects the evaluation of the behaviour and its outcome (Knussen, Yule, MacKenzie, & Wells, 2004); a person will hold a favourable attitude towards a given behaviour if s/he believes that performing this behaviour will lead to mostly positive outcomes (Coleman et al., 2011). In addition, according to Fishbein and Ajzen (2010), past experiences could potentially influence the beliefs people hold.

Subjective norm is the second determinant of behavioural intention; it refers to “an individual’s perception that most people who are important to her think she should (or should not) perform a particular behaviour” (Fishbein & Ajzen, 2010, p. 131). Subjective norm (or social pressure) influences individual’s feelings about how significant others feel about a given behaviour, and the extent to which the individual is motivated to comply with the significant other (Knussen et al., 2004; Kollmuss & Agyeman, 2002; Paul, Modi, & Patel, 2016; Schiffman et al., 2014). Thus, beliefs about “the expectations and behaviours of others (normative beliefs) are assumed to determine subjective norms” (Ajzen et al., 2011, p. 102).

The TPB is derived from the TRA (Ajzen, 2002b). Because many behaviours pose difficulties of execution that may limit volitional control over the behaviour of interest, and the additional component perceived behavioural control (PBC) in addition to intention was added into the TRA, and thus makes the Theory of Planned Behaviour (Ajzen, 2002b). PBC refers to “the extent to which people believe that they are capable of performing a given behaviour, that they have control over its performance” (Fishbein & Ajzen, 2010, p. 154). A lack of requisite skills and abilities can prevent people from acting on their intentions (Fishbein & Ajzen, 2010). PBC and behavioural intentions are the immediate antecedents of the TPB (De Leeuw et al., 2015). According to Ajzen (2002b), all else being equal, a high level of PBC increases an individual’s behavioural intentions, and increases effort and perseverance.

According to the TPB, human behaviour is guided by three kinds of considerations: beliefs about the likely consequences (behavioural beliefs), beliefs about the normative expectations of other people (normative beliefs), and beliefs about the factors that may facilitate or impede performance of the behaviour (control beliefs) (Ajzen, 2002a, 2002b). The TPB assumed human social behaviour is reasonable and is within an individual's volitional control and, hence, can be predicted from intentions alone (Ajzen, 2002b; Bamberg et al., 2003; Hassan, Shiu, & Parry, 2016). Therefore, though people's beliefs may be biased, incorrect, or may reflect wishful thinking, however, the three components are assumed to follow reasonably from those three beliefs, and these beliefs are assumed to guide intentions and behaviour (Ajzen et al., 2011; Bamberg et al., 2003). As a general rule, the more favourable the attitude, and the more favourable the subjective norm, and the greater the PBC, an individual's intention to perform the behaviour should be strong (Bamberg et al., 2003). In addition, the TPB proposes that a multitude of background factors can potentially influence the beliefs people hold, such as age, gender, ethnicity, socioeconomic status, education, personality, and past experiences (De Leeuw et al., 2015; Fishbein & Ajzen, 2010).

Furthermore, the TPB also recognises elements of automaticity; once a behaviour has been performed many times, it is no longer necessary to go through a consideration of accessible beliefs (Bamberg et al., 2003). For instance, Bamberg et al. (2003) conducted a study on introducing the semester bus ticket to university campus. They found bus use increased significantly while car use declined significantly, and they suggested habits did change, and a new habit has developed (Bamberg et al., 2003). Also, they pointed out that although human social behaviour may well contain automatic elements, is still based on reason (Bamberg et al., 2003). However, they argued that even when routine, human social behaviour is always regulated at some, or even low level of cognitive effort (Bamberg et al., 2003). They also found past behaviour is not always a good predictor of future behaviour, only when "circumstances remain relatively stable does prior behaviour make a significant contribution to the prediction of later action" (Bamberg et al., 2003, p. 186).

Culture could influence TRA and TPB constructs, and those two theories have been used and tested in different countries. Oreg and Katz-Gerro (2006) tested the use of the TPB and validity in different countries in terms of different pro-environmental behaviours; they

found that behavioural intentions mediate the relationship between pro-environmental attitudes and behaviours. Hassan et al. (2016) conducted a structured review on twenty-nine journals that have employed the TRA/TPB related to consumer behaviour from at least two different countries. In terms of the TRA/TPB relationships, they found subjective norm impact on behavioural intention varies in different countries; whereas the impact of other two components (attitude and PBC) on behaviour intention did not differ or has no variation across country samples (Hassan et al., 2016). In terms of testing the role of culture within the TRA/TPB, they found cultural differences only affect the relationship between subject norm and behavioural intention; the effect of subjective norm on behavioural intention is stronger in countries with a high power distance culture (e.g. China, Saudi Arabia, and Iraq) (Hassan et al., 2016).

The TRA/TPB has have been widely studied and used in social psychology, and it is effective in explaining psychological process and contextual decision-making (Paul et al., 2016). Also, there have been a diverse literature on the use of these theories to understand consumer behaviour and consumption contexts (Hassan et al., 2016; Silva et al., 2014). Recently, the TRA (Bang et al., 2000; Coleman et al., 2011; Kim et al., 2012; Polonsky et al., 2012) and the TPB (Ajzen et al., 2011; Bamberg et al., 2003; Bamberg & Möser, 2007; Chan & Bishop, 2013; De Leeuw et al., 2015; Klöckner, 2013) have been widely used in the pro-environmental behaviour domain.

However, there are researchers who argued that the TRA/ TPB focused on self-interest on rational choice, thus there are concerns and criticisms about the level of completeness when dealing with behaviours involving moral dimension, such as the pro-environmental behaviour (Bamberg & Möser, 2007; Chan & Bishop, 2013; Klöckner, 2013). Moral norms are “internalised rules that prescribe what behaviours are considered right or wrong in particular situations” (Schwartz, 1977, as cited in Chan & Bishop, 2013, p. 97). Recycling as an example, Chan and Bishop (2013) argued that it is a costly behaviour both in time and efforts, with no offering of extrinsic reward, and people would not recycle if based on the economic assumption of rationality; thus, the behaviour is best conceptualised as a moral rather than an economic behaviour. In addition, Bamberg and Möser’s (2007) pointed out that the feelings of guilt plays an important role in moral norm. Therefore, as suggested above, this dimension should not be overlooked.

The three constructs (attitude, subjective norm, and PBC) of the TPB in relation to pro-environmental behaviours have been examined by various studies. There have been conflicting findings in terms of the effect of subjective norm on behavioural intentions; some studies found subjective norm is a positive predictor of pro-environmental behaviours (Fielding, McDonald, & Louis, 2008; Kim et al., 2012), whereas others found it does not make a significant contribution and is often weakly related to intention (Knussen et al., 2004; Paul et al., 2016; Terry, Hogg, & White, 1999). De Leeuw et al. (2015) found the extent to which people believe they have control over pro-environmental behaviour seems to be of particular importance in fostering the motivation to adopt eco-friendly behaviours. Coleman et al. (2011) found that the green consumption intention affects actual green consumption behaviour. Among these constructs, attitude was found as the key predictor on intention and it was considered “the most important explanatory construct in social psychology”, and it was assumed as the key to understanding human behaviour (Fishbein & Ajzen, 2010, p. 255). Though attitude does not determine behaviour directly, rather it influences behavioural intentions which in turn shape people’s actions (Kollmuss & Agyeman, 2002), it should be given more attention.

Attitude is measured and analysed because it reflects past experience, offers insights about behaviour, and shapes future behaviour (Cooper & Schindler, 2011). Studies related to green behaviour have introduced environmental attitude as a central variable between environmental knowledge and environmental behaviour, and attitude was commonly found as an antecedent to environmentally oriented behaviour (Fraj-Andrés & Martínez-Salinas, 2007; Polonsky et al., 2012). Moreover, environmental attitude is useful in differentiating green consumers from others, as having a positive liking of things is a condition for consumers to proceed to make decisions (Bodur & Sarigollu, 2005). Researchers found by having an environmental attitude, green consumers feel morally obligated to conserve the environment and prevent further deterioration (Chekima, Wafa, Igau, Chekima, & Sondoh, 2016). Also, attitude is the most significant predictor of environmental behaviour (Bodur & Sarigollu, 2005; Fraj & Martinez, 2006; Kim et al., 2012; Polonsky et al., 2012); it positively affects consumers’ willingness to pay more for green products (Laroche, Bergeron, & Barbaro-Forleo, 2001); it is a strong predictor of consumer purchase intention for green products (Cheah & Phau, 2011; Chekima et al., 2016; Kollmuss & Agyeman, 2002; Paul et al.,

2016; Smith & Paladino, 2010; Tang, Wang, & Lu, 2014; Thøgersen & Zhou, 2012; Yazdanpanah & Forouzani, 2015; Zheng & Chi, 2015).

## **2.3 Factors Influencing Attitude and Behaviour**

According to Fishbein and Ajzen (2010), those theories assumed that “human social behaviour follows reasonably and often spontaneously from the information or beliefs people possess about the behaviour under consideration” (p. 20). However, there are various factors identified from the literature that influence people’s pro-environmental attitudes and behaviours, including education and environmental knowledge, environmental affect (emotion and feelings), values and concerns, locus of control, life experience, demographics, motivation, price, and cultural influence.

### **2.3.1 Education and Environmental Knowledge**

Environmental knowledge has been widely found in the literature, which relates to pro-environmental attitudes and behaviours. Environmental knowledge means what people know about the environment (Pagiaslis & Krontalis, 2014), and as Peattie (1992) pointed out, people can be educated from companies, media, education systems, and the government.

Environmental knowledge was a commonly mentioned moderating variable, which contributes to and influences one’s attitude (Fransson & Garling, 1999). Researchers found greater environmental knowledge led to adjusted environmental views (Pagiaslis & Krontalis, 2014), and consumers with greater environmental knowledge showed a positive attitude towards the environment (Fraj-Andrés & Martínez-Salinas, 2007). Cheah and Phau (2011) found environmental knowledge increased consumer awareness levels, and thus would potentially promote a favourite attitude towards green products. Polonsky et al. (2012) found knowledge was the precondition to an environmental attitude; it was related to and driven by the attitude towards the environment.

Environmental knowledge not only relates to attitudes, but also relates to pro-environmental behaviours. Researchers found that green behaviours are related to environmental knowledge, as the knowledge must be present for environmentally oriented behaviour to occur (Fraj-Andrés & Martínez-Salinas, 2007; Polonsky et al., 2012). Harris (2006) supported the view and argued that environmental knowledge and basic education are prerequisites for fostering attitudes and behaviours, people would not easily understand

or value their own relationship with the environment if there is a lack of basic knowledge. Researchers found that with environmental knowledge, people are willing to pay more (Bang et al., 2000), and are more likely to act in a pro-environmental way (Fraj-Andrés & Martínez-Salinas, 2007; Hobson, 2003).

For instance, Henion (1972) conducted a research on the phosphate levels of detergent; by giving consumers information about these levels and consequences, which could over fertilise and thus pollute water, the result led to a comparative loss of sales for detergent brands with high phosphate levels, and a comparative increase of sales for those with lower phosphate levels. Fotopoulos and Krystallis (2002) found in their organic food study that education is the key factor that differentiates the users from the non-buyers; it can turn an “unaware of the organic idea” consumer to a “highly motivated organic supporter” (p. 759). Carrigan, Szmigin, and Wright (2004) found knowledge translated to a certain degree into ethical purchasing behaviour; those consumers understand the principle and meaning behind the product, which influenced their support of Fair Trade products. Thøgersen, Haugaard, and Olesen (2010) found consumers with high intention of buying sustainable fish products had acquired more issue-relevant knowledge and started the process of adopting eco-labels. Smith, Varble, and Secchi (2015) conducted a study on EcoFish consumers in the US, they found education efforts are likely to change the consumption patterns, and environment awareness and knowledge can lead to action.

However, there have been studies showing conflicting results on the relationship between environmental knowledge and pro-environmental behaviours. Kollmuss and Agyeman (2002) argued linear progression of increase in knowledge and awareness did not lead to pro-environmental behaviours, and reliance on information to drive a change is difficult. Other researchers supported the view that by having the knowledge does not necessarily lead to actions. For instance, Eze and Ndubisi (2013) found most young respondents in Malaysia were familiar with the term ‘green products’. Similar to Rettie, Burchell, and Riley’s (2012) study, who found consumer’s perceptions on what is green are generally consistent with what is green or not green, and the failure of adoption of green behaviours cannot be summarised as a knowledge deficit. Smith and Paladino (2010) found that an increase in organic knowledge increases the level of positive attitudes held, but did not have an effect on purchase intentions and behaviours. Ajzen et al. (2011) found

environmental knowledge had no effect on energy conservation behaviour. Zheng and Chi (2015) did not find environmentally friendly apparel knowledge has significantly positive effect on environmentally friendly apparel purchase intention.

However, Simmons and Widmar (1990) argued that if consumers do not have the environmental knowledge, they would have difficulties acting in a pro-environmental way. As Johnstone and Tan (2015) highlighted, “some consumers have not yet personalised the green issue because they have difficulty identifying how and why it is necessary to take action now” (p. 816). Pagiaslis and Krontalis (2014) found if consumers do not have product-specific knowledge, they may not engage in buying those products even if they have high environmental concern and hold strong environmental belief of green consumption. Shao, Taisch, and Ortega-Mier (2016) found a lack of sustainability-related information is the main reason that consumers have a lack of motivation for conducting sustainable consumption. Thus, researchers argued that knowledge and information need to be offered to green consumers to help them make green purchase decisions (Shao et al., 2016; Sun, Yang, Huisinigh, Wang, & Wang, 2015; Vicente-Molina, Fernandez-Sainz, & Izagirre-Olaizola, 2013).

### 2.3.2 Environmental Affect (Emotions and Feelings)

Emotions are described as “process that involves an interaction between cognition and physiology”, and they are affective responses that are learned (Mooij, 2014, p. 129). Chawla (1998, 1999) found that emotional connection with the natural world plays an important role in shaping individual’s belief, value, and attitude toward the environment. Mooij (2014), and Pedersen and Neergaard (2006) pointed out that environmentally conscious behaviour is not only about rational insights and appropriate actions, but also involves feelings and emotions. Other researchers supported the view, they found that not only objective factors relate to green consumption, but also intuitive and emotional factors shape behavioural change when in practice (Carrus, Passafaro, & Bonnes, 2008; Peattie, 2010). Moreover, Chan (2001) conducted a study on Chinese green consumers’ green purchase behaviour; the findings showed that attitudes toward green purchases were found to be determined by environmental knowledge and affect, and the affect had much more influence than knowledge.

### 2.3.3 Values and Concerns

Fransson and Garling (1999), and Hartman and Apaolaza-Ibanez (2012) suggested environmental values and concerns were principal determinants in relation to consumers' willingness to perform green behaviours. Values determine the way people think and behave; they are guiding principles that guide one's choices, beliefs, attitudes, and actions in an individual's life (Mooij, 2014; Moons & Pelsmacker, 2012; Paco et al., 2013; Pedersen & Neergaard, 2006). Young et al. (2010) pointed out that environmental values need to be developed through education (formal and informal) before anything else for long-lasting and large behaviour changes. Researchers found the value of altruism, which refers to actively caring, acted as an important predictor in green behaviours (Albayrak, Aksoy, & Caber, 2013; Cleveland, Kalamas, & Laroche, 2012; Geller, 1995). It was found as one explanation of why consumers participated in recycling, conserving energy, and other pro-environmental activities (Essoussi & Linton, 2010). Not only green activities, but also, researchers found it positively related to pro-environmental purchasing behaviours (Cleveland, Kalamas, & Laroche, 2005; Moons & Pelsmacker, 2012; Vicente-Molina et al., 2013).

Environmental concern is the evaluative response towards environmental issues (Moons & Pelsmacker, 2012). Eze and Ndubisi (2013) argued that when values are activated by environmental concern, they will influence pro-environmental behaviours. In addition, environmental concern was found significantly and positively link to environmental attitude (Paul et al., 2016; Tang et al., 2014), positively and directly influenced environmental knowledge (Pagiaslis & Krontalis, 2014) and green behaviours (Albayrak et al., 2013; Pagiaslis & Krontalis, 2014). There has been global evidence showing that people who are concerned about the environment have changed their behaviours accordingly (Sarkar, 2012). There are researchers who found that environmental concerned consumers were engaged in various green activities, such as conservation (Fransson & Garling, 1999), recycling and energy saving (Bamberg & Möser, 2007), and green associations and meetings (Fraj & Martinez, 2006). Also, researchers found environmental concern was related to green purchase behaviour. For instance, it positively influenced consumer purchase intention (Gam, 2011; Hartmann & Apaolaza-Ibanez, 2012; Paul et al., 2016; Schwepker & Cornwell, 1991), positively associated with willingness to pay more (Bang et al., 2000), and positively led consumers to actual green product buying behaviour (Moons & Pelsmacker, 2012). In addition, researchers found that consumers with environmental concern were more likely to seek out green products

and were attracted to green product advertisements (Davari & Strutton, 2014; Haytko & Matulich, 2008). Environmental concern was suggested as a very strong antecedent of green consumer behaviour, and it should not be left out of future studies (Kinnear et al., 1974; Pagiaslis & Krontalis, 2014).

### 2.3.4 Locus of Control

Roberts (1996), and Fraj and Martinez (2006) pointed out that even though many consumers have concerns for the environment, they might feel the responsibility of preserving and protecting the environment belongs to the government or big corporations. For instance, Laroche et al. (2001) found consumers who are not willing to pay more for green products think corporations act responsibly toward the environment. Moreover, as Kollmuss and Agyeman (2002) pointed out that many people are not willing to make personal sacrifices and will not get involved in pro-environmental behaviours because they believe technology and growth will solve environmental issues. In addition to the non-involvement behaviour, researchers found that many people felt they would have limited ecological impact or even have no impact to make a difference (Bray, Johns, & Kilburn, 2011; Fraj-Andrés & Martínez-Salinas, 2007). The above attitudes could be explained by another concept, environmental locus of control.

According to Trivedi, Patel, and Sawalia (2015), environmental locus of control is the degree to which people believe they have an impact on environment through their own behaviours. Consumers with internal environmental locus of control are those who feel their actions can bring about change (Kollmuss & Agyeman, 2002), and they can “influence the quality of environment, by engaging in or avoiding activities that are at least in part under their own volition” (Cleveland et al., 2012, p. 297). Consumers with external environmental locus of control would feel their actions are insignificant, and “change can only be brought by powerful others” (Kollmuss & Agyeman, 2002, p. 243), and thus they are less likely to act to protect the environment.

Trivedi et al. (2015) found internal locus of control is positively related to green behaviour, and internal locus of control has a significant positive impact on green behaviour. McCarty and Shrum (2001) studied recycling, and they found people with internal control believe it is important to do recycling and they tend to recycle. Moreover, studies found people with internal control were active, concerned consumers (Bodur & Sarigollu, 2005),

they showed greater environmental attitudes (Tucker, 1978), were more likely to act in a green manner (Fransson & Garling, 1999; Schwepker & Cornwell, 1991; Tucker, 1978), and believe their behaviours would have an impact on the environment (Schwepker & Cornwell, 1991) than those with external control.

Moreover, researchers found that there could be a relationship between power distance and locus of control, and individualistic culture and locus of control, based on Hofstede's cultural framework (Hassan et al., 2016; Mooij, 2014). Mooij (2014) pointed out that people in collectivistic cultures are more dependent on institutions and governments, and external locus of control operates. Hassan et al. (2016) found people in low power distance cultures tend to have greater internal locus of control, and those people believe their own actions and decisions influence events; and thus, they act more freely in relation to their personal attitudes and preferences (Hassan et al., 2016). Whereas people in high power distance cultures would be less likely to act on their personal attitudes and preferences; they are less likely to initiate actions because of social conventions constraint whereby "the power to enact change lies with others of a higher status" (Hassan et al., 2016, p. 73).

### 2.3.5 Life Experience

Wagner (2003) noted, human behaviour is of a highly historical and contextual nature, and there is pattern in people's daily life routines, which is hard to change (Schäfer, Jaeger-Erben, & Bamberg, 2012). However, life histories are unpredictable (Chawla, 1999), and they can open a window of opportunity for change (Schäfer et al., 2012; Verplanken & Wood, 2006). Chawla (1998) conducted a cross-culture study on environmentalists from both the United States and Norway, and found life experiences and people in their life have shaped those environmentalists. Life experiences related to the environment are nature experience spent outdoors, family member influence, and pro-environmental organisation influence (Chawla, 1998). Education was salient in their childhood, education and friends (role models) were salient during university years, and organisation and vocation influence were salient in adulthood (Chawla, 1998). Also, Chawla (1999) found negative experience of seeing or learning environmental degradation and pollution acted as a source of concern and action, and also, people with those negative experiences showed a stronger emotional reaction. Moreover, researchers found that many pregnant women have changed their diet

habits at least to some extent or even more radical changes toward more natural, healthy and organic diets; and also, a decrease of car use after relocating in cities with good public transportation (Schäfer et al., 2012).

### 2.3.6 Demographics

Social demographic factors could provide clues regarding the motivation of environmentally oriented consumption (Wagner, 2003). Researchers found females tend to show more concerns and carry out responsible behaviour than males in various studies (Chekima et al., 2016; Haytko & Matulich, 2008; Laroche, Bergeron, Tomiuk, & Barbaro-Forleo, 2002; Moons & Pelsmacker, 2012; Roberts, 1996), and in both advanced and emerging countries (Vicente-Molina et al., 2013). This is because as other researchers suggested that females were found to be driven by family health and to preserve the planet for future generations (Ottman, 1993), and are more emotionally engaged and more willing to change (Kollmuss & Agyeman, 2002). In addition, researchers found females showed more positive attitudes toward environmentally friendly advertisements (Haytko & Matulich, 2008).

Other than gender, different studies found pro-environmental behaviours were among consumers with a higher education level (Chekima et al., 2016; Moons & Pelsmacker, 2012; Sun et al., 2015), older age (Carrigan et al., 2004; Moons & Pelsmacker, 2012), married (Laroche et al., 2002), higher economic status (McCarty & Shrum, 2001), and consumers who have at least one child at home (Laroche et al., 2002). In particular in terms of age, Carrigan et al. (2004) found that older people (50 years old and plus) shared a sense of moral responsibility in their ethical purchase behaviour; they are activists both through 'buycotts' and boycotting; and they are not bothered about what other people think or do if they reckon it is the right thing to do.

On the other hand, there have been conflicting results or inconsistencies found in various studies in terms of demographics influencing pro-environmental studies. Squires, Juric, and Cornwell (2001) found except for age, the demographic variables were not significant predictors of intensity of organic food consumption. Bodur and Sarigollu (2005) did not find the linkage between females and environmental sensitivity and behaviour, as they are not more educated than men in Turkey. Gan et al. (2008) found gender, income, ethnic, and the number of children was not significant and there was no effect in green

purchasing intentions. Riley et al. (2012) did not find social-demographic differences in seniors' ecologically conscious consumer behaviour, and the proposition that people who have children or grandchildren show greater environmental concern was not supported (Riley et al., 2012). De Leeuw et al. (2015) found there were no significant differences when gender was entered into the model of the TPB. Khare (2015) did not find demographics have an influence on green purchase behaviour.

Cleveland et al. (2012) pointed out the emerging consensus that attitudinal variables are more powerful predictors than demographic indicators on pro-environmental behaviours. As suggested, there have been contradicting and confusing arguments in demographic factors, and that is because the demographic factors relevant to one area or country of green behaviour are not relevant to another, and therefore inappropriate for identifying green consumers (Bray et al., 2011; McDonald et al., 2012; Pedersen & Neergaard, 2006; Rettie et al., 2012; Wagner, 2003). However, demographics do help address the green consumer group for better understanding (Wagner, 2003), and should not be disregarded when looking into green behaviours (Pagiaslis & Krontalis, 2014).

### 2.3.7 Motivation

Researchers argued that motivation plays an important role in understanding behaviours (Mooij, 2014), consumers need motivation to adopt green products (Thøgersen et al., 2010), and a better understanding of the motivation could increase green products demand (Ritter et al., 2014). Motivation is the reason for behaviour, why an individual does something, and it is a driving force of an action (Quester et al., 2007; Wagner, 2003).

There are various motivational factors identified by different studies in relation to pro-environmental behaviours. Peattie (1992) stated the reasons behind green consumers' demand for green products could be the interest in environmentalism, the concern for future generations, a rejection of the values of the consumer society, or simply a willingness to try something new and fashionable. Barr and Gilg (2006) found obligation was one significant motivator that environmentally conscious consumers are aware of environmental effects. Bond (2011) found the most important consideration that motivates respondents for energy (i.e. electricity, gas, water) use and saving is cost savings, followed by a sense of moral obligation of doing the right thing. Gam (2011) found the common reasons for consumers to purchase eco-friendly clothing are fun, trying something new, design, quality,

and environmental protection. Chen and Wei (2012) found there is a fulfilment of feeling security by using organic cotton products; they further suggested product attributes (i.e. product origin, touch, absence of chemical residue) and functional consequences (i.e. comfort, hypoallergic quality) should also be promoted to targeted consumers.

Moreover, researchers found the reason of purchasing organic food is because consumer environmental concern (Hughner et al., 2007), and also the health benefit and a better food taste (Thøgersen & Zhou, 2012). Megicks et al. (2012) explored and identified local food purchasing drives, includes: intrinsic quality, local support and provenance, ethical sustainability, and shopping benefits that relate to feelings and emotions experienced for local produce. Jägel, Keeling, Reppel, and Gruber (2012) explored consumers' drives in ethical clothing consumption, they found individual motives are not only for environmental and altruist ethical concerns, but also for money, personal image, and well-being. Ritter et al. (2014) evaluated the elements that motivate green consumption; they found information and knowledge, environmental attitude, social context and environmental consciousness were strongly correlated with green consumption. Watkins et al. (2015) found that many New Zealand green consumers are motivated largely by their environmental concerns and by "serving as role models to promote the wellbeing of future generations" (Watkins et al., 2015, p. 119). Smith et al. (2015) found EcoFish consumers were driven by several factors, such as for healthy reason, they are more environmentally than other meats, and also for cultural and religious reasons.

As reviewed so far, a large number of studies on green behaviours were context specific that focus on single category. For instance, green products within automobile industry (Shao et al., 2016), eco-friendly tissue paper products (Barbarossa & Pastore, 2015), environmentally household products (Johnstone & Tan, 2015), collection and recycling of spent batteries (Sun et al., 2015), outdoor products (Fuentes, 2014), biofuel (Pagiaslis & Krontalis, 2014), low-displacement vehicles (Tang et al., 2014), organic cotton products (Chen & Wei, 2012), ethical clothing (Jägel et al., 2012), organic food (Fotopoulos & Krystallis, 2002; Smith & Paladino, 2010; Thøgersen & Zhou, 2012; Yazdanpanah & Forouzani, 2015), local food buying behaviour (Megicks et al., 2012), energy use and conservation behaviour (Bond, 2011), purchase recycled products (Essoussi & Linton, 2010), technology-based products (McDonald, et al., 2012; Young et al., 2010), recycling behaviour (McCarty & Shrum,

2001), renewable energy (Bang et al., 2000), forest products (Biggsby & Ozanne, 2002; Ozanne & Vlosky, 1997), and disposable diapers and cloth diapers (Follows & Jobber, 2000).

However, it has been pointed out that an individual involved in an environmentally oriented behaviour may not likely be involved in other behaviours (Peattie, 2010; Polonsky et al., 2012), such as the non-purchasing behaviour of conservation versus the purchase of organic food. In addition, as Peattie (1992) argued that there could be variety of different motivations behind different green activities and green purchasing behaviours. It seems better to consider diverse green behaviours rather than a specific environmental activity or green buying behaviour (Fraj-Andrés & Martínez-Salinas, 2007). Barr and Gilg (2006) examined individual's different behavioural responses and provided evidence that "environmental behaviour transcends these somewhat compartmentalised boundaries and should be placed in a holistic context which recognises links between specific modes of behaviour" (p. 917). Peattie (2010) supported a similar view that regards green consumption as an expression of lifestyle, the collective impact of all a consumer's behaviours is more significant; there is a need to consider how the range of green behaviours interrelate. Furthermore, the range of green behaviours or a green lifestyle can explore complex people, and can "help explain some of the inconsistencies and compromises embedded in consumers' behaviours when examined as a whole" (Peattie, 2010, p. 209).

Therefore, this study will focus on green consumers who have involved in more than one green activity (i.e. reduce, reuse, recycling, conservation of resources) or have bought green products from different product categories, in order to find out what is the common drivers in this group, and to understand green consumer attitude and behaviours in general.

### 2.3.8 Price

Except for different methods employed in different studies, actual buying situations are also different (Peattie, 2010; Pedersen & Neergaard, 2006). A positive environmental attitude directly influences low-cost pro-environmental behaviours such as recycling (Kollmuss & Agyeman, 2002). However, different to such green activities, green purchasing behaviour involves economic factor. Though there are researchers who found that premium price has no moderating effect in relation to green purchasing barriers (Ritter, Borchardt, Vaccaro, Pereira, & Almeida, 2014), most other studies have showed different results. Kalafatis, Pollard, East, and Tsogas (1999) found economic considerations outrank and

defeat environmental concern for many consumers. This is one of the reasons why various studies, as discussed before, showed evidence of positive attitude, environmental values, and strong purchase intention, but with low actual purchase behaviour.

Product price is often taken into account when consumers make purchase decisions (Eze & Ndubisi, 2013; Smith & Paladino, 2010); however, the trade off in attributes that consumers use and evaluate when making decisions is usually not taken into account (D'Souza et al., 2006). Tilikidou and Delistavrou (2014) conducted research on Greek consumers in 2011, they found their conservation behaviours were largely driven by financial motives rather than environmental concerns because of the financial reasons during economic crisis, which also restricted consumers' actual pro-environmental purchase choices. In addition, researchers found that there is a negative relationship between higher price and green purchase behaviour, in other words, consumers are less likely to purchase green products if they are more expensive than alternatives (Gan et al., 2008). Furthermore, Essoussi and Linton (2010) conducted a research on recycled products purchase and they found it depends on the type of product for consumers' willingness to pay for a premium price.

### 2.4 Culture Comparison

Consumers' attitudes and behaviours are affected by culture (Pedersen & Neergaard, 2006), and culture is a significant predictor of ethical beliefs and behaviours (Riley et al., 2012). Hofstede's cultural framework has been widely used in marketing in cross-cultural studies (Hassan et al., 2016). As Hofstede (1984) defined, culture is "the collective programming of the mind which distinguishes the members of one human group from another" (p. 21). Culture provides people with a sense of identify and also with a perception of what is acceptable behaviour within society (Silva et al., 2014). In addition, since most human behaviour is learned rather than innate, culture is learned and acquired, and culture does affect a wide array of behaviours (Quester et al., 2007; Schiffman et al., 2014). People's beliefs are associated with cultural values (Quester et al., 2007), and cultural values are inside people's minds, part of people's identity (Mooij, 2014). Researchers found cultural values are associated with pro-environmental behaviours (Oreg & Katz-Gerro, 2006); they influence brand images, the way of advertising, and thus green marketers must understand the differences across cultures (Mooij, 2014).

Cultural differences can be examined at various levels (Hassan et al., 2016), and the present study will explore green consumer behaviour at the country-level. Also, as Mooji (2014) stated, consumer behaviour theories are rooted in Western psychology and sociology, and thus they may not be applicable in other parts of the world. There are numerous studies focused on pro-environmental behaviours among more-developed countries like the U.S. (Davari & Strutton, 2014; Laroche et al., 2001), Australia (Bond, 2011; Cheah & Phau, 2011; Smith & Paladino, 2010), New Zealand (Gan et al., 2008; Johnstone & Tan, 2015), U.K. (Barr & Gilg, 2006; McDonald et al., 2012; Young et al., 2010), Sweden (Fuentes, 2014), Canada (Cleveland et al., 2005; Cleveland et al., 2012; Follows & Jobber, 2000), Spain (Fraj-Andrés & Martínez-Salinas, 2007), Italy (Barbarossa & Pastore, 2015), Greece (Fotopoulos & Krystallis, 2002; Pagiaslis & Krontalis, 2014; Tilikidou & Delistavrou, 2014), and France (Cherrier et al., 2012).

In particular, as one of the market forces, green behaviours have affected most western markets in terms of either buying or boycotting behaviours, especially green consumers in Britain, the U.S., Canada, Germany, and the Netherlands (Wagner, 2003). There are studies found ten per cent of British consumers make up a highly committed green segment, and they have a very consistent green buying behaviour according to their environmental concern (Wagner, 2003). In a survey carried out in twenty-seven Member States of the European Union, 26,573 respondents were asked on their attitudes toward green products, it showed that more than a quarter of them (or 26 per cent) often buy environmentally-friendly products (European Commission, 2013).

Also, green behaviour research has expanded geographically, from early research mostly focused on more-developed affluent economies to now a focus on less-developed economies, reflecting the globalisation of environmental concern (Peattie, 2010). However, there are not that many research focused on green behaviours among less-developed countries. Most of them are focused on countries like China (Chan, 2001, 1999; Chan & Lau, 2000; Thøgersen & Zhou, 2012), India (Goswami, 2008; Khare, 2015; Kumar & Ghodeswar, 2015; Paul et al., 2016; Trivedi et al., 2015), Turkey (Bodur & Sarigollu, 2005), Saudi Arabia (Abdul-Muhmin, 2007), Brazil (Ritter et al., 2014), Malaysia (Eze & Ndubisi, 2013), and Iran (Yazdanpanah & Forouzani, 2015).

Mooij (2014) pointed out that people's attitudes vary, and how people behave and what motivates them is largely a matter of culture. In addition, as culture is acquired, it influences an individual's thought processes and a wide variety of behaviours (Quester et al., 2007). Researchers found that people's attitudes, knowledge, and behaviours toward pro-environmental actions vary across different cultures (Chan, 1999; Fransson & Garling, 1999; Laroche et al., 2002). Squires et al. (2001) found consumers from different countries (i.e. Danish and New Zealand consumers) have different attitudes in terms of consuming organic food, as consumers have different understanding about the benefits of organic food. Moreover, researchers found that culture significantly influences green purchase intention (Chekima et al., 2016) and green products consumption (Quester et al., 2007; Ritter et al., 2014). Any culture influence would provide useful insights in explaining green consumer and their behaviours; for effective marketing in different countries, it is critical to know and understand any possible differences.

There have been cross-culture studies conducted on pro-environmental behaviours between Brazilian and Portuguese green consumers (Lemke & Luzio, 2014); England, Germany, Portugal and Spain university students (Paco et al., 2013); university students in the U.S., Spain, Mexico and Brazil (Vicente-Molina et al., 2013); UK, Germany, Japan, and Hungary senior consumers (Riley et al., 2012); American and Korean students (Kim et al., 2012); Australian, Chinese, German, Indian, Spanish, Swedish, Turkish, USA consumers (Eckhardt, Belk, & Devinney, 2010); French-Canadian and English-Canadian consumers (Laroche et al., 2002); and Denmark and New Zealand consumers (Squires et al., 2001). All these studies have found differences exist in different variables in terms of pro-environmental behaviours between consumers in emerging and developed countries.

Moreover, though there are numerous studies on green behaviours in different countries, little has been conducted using qualitative studies except the followings. For example, Cherrier et al. (2012) interviewed French consumers on alternative and reduced consumption, and the social cultural barrier as the constraining forces to sustainable practices were found. McDonald et al. (2012) interviewed UK consumers and identified a green consumer profile, and they explored green consumers' (non-) purchase decisions and purchase process. Young et al. (2010) interviewed UK consumers, they found incentives and labels would help consumers concentrate their limited efforts, and being green needs time

and space in people's lives that is not available in increasingly busy lifestyles. Fuentes (2014) observed and interviewed Sweden consumers and found consumer green shopping strategies: shop for things that last, consume less, find green brands, and look at product information. Barbarossa and Pastore (2015) interviewed Italian consumers and found green purchasing barriers: perceived higher price, the lack of availability, and improper product communication. As reviewed so far, despite the valuable body of research on different countries and on cultural comparison, however, there is no research on exploring and comparing green consumers' pro-environmental attitudes and behaviours between New Zealanders and Chinese.

Mooij (2014) pointed out that differences between nations are substantially larger than differences within nations, and in particular the nations are different in geography, climate, economy, linguistics, and/ or ethnic lines. There are two different cultures in China and in New Zealand. Researchers pointed out that the Chinese cultural context is different from Western Europe or North American (Thøgersen & Zhou, 2012). According to Chan (2001), consumers' green attitudes and green purchase intentions are significantly influenced by the traditional man-nature orientation and collectivism. Also, from what Harris (2006) has reviewed and found that for most Chinese, the environment is primarily about sanitation and health, it exists for the benefit of people, and they care about the problems that affect them directly in space and time. Moreover, Harris (2006) found Chinese people tend to expect others (i.e. particular the government) to take care of the environment protection, rather than considering their personal responsibilities for protecting the environment.

Whereas in New Zealand, the environmental concern rose in the early 1970s, and the first Green Party was founded in New Zealand in 1972, as Peattie (1992) stated, this was one of the "key environmentalist landmarks during this period" (p. 20). New Zealanders have traditionally admired "the conquest of nature" (Quester et al., 2007, p. 531), but with stronger environmental values compare to Nordic countries (Yeoman, Palomino-Schalscha, & McMahon-Beattie, 2015).

Moreover, Watkins et al. (2015) conducted a study on New Zealand consumer lifestyles; they found people's attitudes toward the environment and the importance of

sustainability were some of the most significant changes. There is an emergence of frugality as a lifestyle characteristic found to those reported in 2005 (Watkins et al., 2015). New Zealand respondents expressed a great concern for the environment and sustainable consumption; they believe government should play a more positive and constructive role in terms of the protection, and also, they are increasingly making their own contributions to a more sustainable future in terms of consumption behaviours (Watkins et al., 2015). In addition, Watkins et al. (2015) identified seven segments in relation to New Zealand consumers lifestyles, and one of the segments identified is the 'New Greens', which represents "a new segment that does not clearly align to any segment from 2005" (p. 119), as noted by the researchers. These consumers have the following characteristics in terms of environment and corporations: they buy from the companies who protect the environment; they believe government should spend more on protecting the environment; and their food and exercise behaviours are health oriented (Watkins et al., 2015).

Furthermore, people in these two countries live in two different environments and living conditions which may affect their green behaviours. According to World Bank (2015a), because of its per capita income, China remains a developing country. Rapid economic growth, urbanisation and industrialisation have brought the country environmental challenges and intensified pollution (Chan & Lau, 2000; Harris, 2006; World Bank, 2015a, 2015b), such as air pollution, freshwater pollution, and excessive waste (Harris, 2006). In Chan's (1999) study in Beijing and Guangzhou, the findings suggested Chinese people's ecological concern were still low even though they expressed strong emotional attachment to environmental issues. On the other hand, Baldassare and Katz (1992) found people who feel environmentally threatened on their health and wellbeing, such as air and water pollution, are more likely to engage in environmental practices. For instance, those people are "significantly more likely to recycle, conserve water, buy environmentally safe products, and limit their driving to reduce air pollution" (Baldassare & Katz, 1992, p. 611). There are studies showing that Chinese people started to realise their well-being was influenced by ecological deterioration (Chan, 2001), and people with environmental concern have considered environmental reasons while making their purchasing decisions (Chan, 2004). As the decades have passed, there have been increasing concerns and news on environmental

problems from media and the public, and also, such issues have been emphasised in recent China's 13<sup>th</sup> five-year plan in March 2016.

In comparison, New Zealand is a developed country with a higher-income level (World Bank, 2013), and New Zealand's economy is agricultural, intellectual property, and natural resource based (Yeoman et al., 2015). New Zealand promotes the pristine nature of its environment to position itself on the international stage through the *100% Pure New Zealand* campaign (Tourism New Zealand, 2016), and the country has always been viewed as clean, green, and pure by consumers (Watkins et al., 2015; Yeoman et al., 2015). Under those two different countries, living conditions, and culture, the attitudes and behaviours of consumers from China could be different from New Zealand consumers. By exploring on the cultural differences, this research would provide a better understanding of consumer behaviour as why individuals from one country behave the way they do; also, it could provide useful insights for marketers to launch green products and conduct marketing campaigns in these different countries.

### 2.5 The Importance of Green Consumers

As reviewed so far, there is a valuable body of research (Barr & Gilg, 2006; Cowan & Kinley, 2014; Gam, 2011; Hartmann & Apaolaza-Ibáñez, 2012; Haytko & Matulich, 2008; Paco et al., 2013; Pagiaslis & Krontalis, 2014; Vicente-Molina et al., 2013; Zheng & Chi, 2015) that have examined consumers' attitudes, purchase intentions, willingness to purchase and relevant factors that mediate purchase intentions. Also, there are valuable studies on the reasons why consumers do not purchase green products (Barbarossa & Pastore, 2015; Eckhardt et al., 2010; Johnstone & Tan, 2015; Lim, Ting, Ng, Chin, & Boo, 2013). However, the literature has given little attention to explore green consumers' attitudes and actual behaviours in terms of performing both green activities and green purchases through the use of qualitative studies.

Relatively speaking, green consumers do work harder than regular consumers to find more sustainable ways in consumption, as the green behaviour is affected by a number of constraints. For instance, consumers perceive green products take time to find, inconvenient to buy, and higher price with lower quality (Johnstone & Tan, 2015; Ottman, Stafford, & Hartman, 2006; Pedersen & Neergaard, 2006; Watkins et al., 2015); they perceive green

products do not have a good performance (Johnstone & Tan, 2015; Ottman et al., 2006); it is hard for them to change current habits (Johnstone & Tan, 2015; Watkins et al., 2015); there is too much confusing information and greenwashing (Johnstone & Tan, 2015); or green products are not available to them (Fotopoulos & Krystallis, 2002; Watkins et al., 2015).

There is not enough attention paid in green consumers and their actual behaviours. As Peattie (2010) pointed out, the collective impact of green consumer behaviour choices and efforts are important to both the environment and the green corporations and producers who pursue sustainable development. It is important to acknowledge it is *not* claimed that mass-market consumers are not important in practicing green activities and buying green products, actually there are studies showing more consumers are becoming more conscious about environmental issues in their purchasing decisions (United Nations Industrial Development Organisation [UNIDO], 2011). However, according to previous literature, this study found it is important to differentiate general consumers and green consumers.

Firstly, there are consumers who are not aware of or do not care about environmental issues, and they are not willing to consider efforts and time for any environmental improvement behaviours, or further green purchasing behaviours (Barr & Gilg, 2006; Eckhardt et al., 2010; Gam, 2011; Harris, 2006; Kollmuss & Agyeman, 2002; Lim et al., 2013). Also, according to common phenomenon such as inconvenience and consumer inertia (Harris, 2006; Johnstone & Tan, 2015), it would be unlikely for most consumers to practice in a green way (i.e. energy use and conservation) (Johnstone & Tan, 2015); or switch to green products if the change in their habits is substantial (Bray et al., 2011; Follows & Jobber, 2000; Miller, 1991, as cited in Laroche et al., 2002); or they would refuse to perform in a green way because of the green stigma in order to protect/ maintain one's sense of self or identity (Johnstone & Tan, 2015).

On the other hand, prior studies showed that consumers who are environmentally conscious would seek out possible ways to minimise the negative impact of their actions and help to protect and preserve the environment from getting worse in various ways (Barr & Gilg, 2006; Davari & Strutton, 2014; Kollmuss & Agyeman, 2002; Riley et al., 2012; Suchard & Polonski, 1991). Environmentally conscious consumers are more likely to adjust or change

their way of living (Barr & Gilg, 2006; Fraj & Martinez, 2006); they are more likely to adopt environmentally friendly behaviours and products (Moons & Pelsmacker, 2012); they have showed an important verbal and real ecological commitment to a range of environmental activities (Barr & Gilg, 2006; Fraj-Andrés & Martínez-Salinas, 2007; Riley et al., 2012); and they are willing to work harder than general consumers to find more sustainable ways of consuming (Barr & Gilg, 2006; Fuentes, 2014). Therefore, the present study agrees with other researchers that it is better to target green consumers, instead of trying to change someone's mind (Davari & Strutton, 2014; Paul et al., 2016; Tang et al., 2014; Young et al., 2010).

Secondly, advertising effectiveness is different. Environmental messages and communications provide little value, or they are not attractive or sensitive to non-environmentally conscious consumers. Studies showed that green customers already had the intrinsic motivation to find ways to avoid damaging the environment, and therefore, promotional activities of green brands would make more sense to them (Davari & Strutton, 2014). Matthes and Wonneberger (2014) support a similar view, they found green consumers are more positive and put more trust in green advertising compared to their counterparts because of the perceived information utility. On the other hand, there are researchers who found that consumers in general who do not have environmental values would think there is no need for them to make the necessary effort or worth the sacrifice in using green products, and thus they would not pay much attention to those green advertisements (Davari & Strutton, 2014; Haytko & Matulich, 2008). Therefore, it would be much more effective for green marketers to target and approach environmentally conscious consumers.

Thirdly, further long-term relationship could be built between green consumers and green products. Researchers found that it is unlikely for general consumers to purchase green products if they have developed brand loyalty to conventional products (D'Souza et al., 2006; Gan et al., 2008). Studies showed that environmentally oriented consumers have higher chances of purchasing environmentally friendly products, and their behaviours are positively related to willingness-to-pay for those products (Goswami, 2008; Trivedi et al., 2015). By interviewing green consumers, Fuentes (2014) found they showed substantial knowledge of certain green brands, company stories and values, and technical

breakthroughs. Relatively speaking, it is more predictable for green consumers who expressed their willingness to pay more for green products compared to consumers in general, and researchers found that green consumers showed a loyalty tendency to green products (Davari & Strutton, 2014; Haytko & Matulich, 2008).

## 2.6 Literature Review Summary

In summary, the literature review of the present study has examined factors that have been found to influence attitudes and green behaviours. The researcher started this chapter with a review of the theories of Reasoned Action and Planned behaviour, which have been found to be useful conceptual frameworks for understanding the factors that influence green behaviours. Among those constructs in these two theories, attitude has been found as an important predictor and variable of pro-environmental behaviour by various studies.

Moreover, there are various factors identified from the literature that influence people's pro-environmental attitudes and behaviours, including education and environmental knowledge, environmental affect (emotions and feelings), values and concerns, locus of control, life experience, demographics, motivation, price, and cultural influence. In addition, there is a valuable body of research that have examined consumers' attitudes, purchase intentions, willingness to purchase and relevant factors that mediate purchase intentions. Also, there are valuable studies on the reasons why consumers do not purchase green products. However, the literature has given little attention to explore green consumers' attitudes and actual behaviours in terms of performing both green activities and green purchases.

Green behaviour research has been expanded geographically, from mostly focused more-developed affluent economies to now less-developed economies; and also, there have been various cross-culture studies. Despite the valuable body of research on different countries and on cultural comparison, however, there is no research on exploring and comparing green consumers' pro-environmental attitudes and behaviours between New Zealanders and Chinese. The culture, environmental status, and living conditions between these two countries are different, and thus people's attitudes and behaviours toward the environment may be different.

In addition, green consumers are the group that actually and often consumes green products; they have the power to make regular purchase decisions on environmentally friendly products, and refuse those that are not green or those that they are not satisfied with. Their impact of choices and efforts are important for the environment, policymakers, producers, and green marketers who pursue sustainable development.

A gap exists in the literature with regards to understanding New Zealand and Chinese green consumers' attitudes and behaviours in both performing green activities and green purchases. This paper will adopt a holistic perspective on green consumer behaviour of these two countries. Their attitudes, motivations, and behaviours will be explored in this paper, and also, similarities and differences will be highlighted between these two groups. By focusing on green consumers' standpoint and exploring on the cultural differences, this research would provide a better understanding of why individuals from one country behave the way they do; also, it could provide useful insights for marketers to launch green products and conduct marketing campaigns in different countries.

## **Chapter 3 Methodology**

### **3.1 Aims and Research Questions**

The purpose of this study is two-fold. The first aim of this research is to explore green consumers' pro-environmental attitudes and purchasing behaviours of environmentally friendly products, including both New Zealand and Chinese. The second aim of this research is to explore any differences between these two groups to gain a deeper understanding of green consumer behaviour in different cultural contexts.

The research questions that have guided this research are 'what is the nature of consumers' pro-environmental attitudes and behaviours, and what are the differences among those consumers from New Zealand and China?'. A set of further questions include: what do green consumers think about the environmental issues and their behaviours; what are the drives behind their green behaviours (why they purchase); how environmentally friendly products are chosen by green consumers (how to choose); and what are the reasons that keep them purchasing those products (why repeat purchases)?

### **3.2 Qualitative Methodology**

This research aims to achieve an in-depth understanding of the purchasing context of Chinese and New Zealand green consumers. As those research questions are seeking to explore the 'why', 'how', and 'what' questions, they lead to explorations instead of testing hypotheses or evaluations. Detailed descriptions or understandings cannot be delved by using survey research; whereas a qualitative approach can provide detailed information and give insights into people's individual experiences (Grbich, 2013), which more appropriately answers the above research questions.

#### **3.2.1 Grounded Theory**

As there is little prior knowledge in the nature of New Zealand and Chinese green consumers' attitudes, consumption behaviour, and differences between these two groups, new theoretical explanations need to be built. Grounded theory best suits the research method to serve this purpose, as it uses the inductive approach and aims for construction of substantive and formal theory (Grbich, 2013).

Grounded Theory is defined as “a method of qualitative inquiry in which data collection and analysis reciprocally inform and shape each other through an emergent iterative process” (Denzin & Lincoln, 2011, p. 360). Grounded theory was introduced by Glaser and Strauss (1967) (as cited in Bryman & Bell, 2015); it is a process that allows the theory to appear and develop out of human behaviour from the empirical data collected (Bryman & Bell, 2015; Myers, 2009). There are several important tools of grounded theory, theoretical sampling, constant comparison, and coding process, which will be discussed later in this chapter.

### 3.2.2 Multiple In-depth Interviews

This research explores more deeply green consumer interpretations, attitudes, motivations, and behaviours with their surrounding environment, which is based on individual's different experiences to understand the different meanings (Cooper & Schindler, 2011; Takhar-Lail & Ghorbani, 2015; Warren & Karner, 2010). Depth interviews can provide an in-depth understanding of the green purchasing context for informants to speak about, and reveal their information and opinions (Belk, Fischer, & Kozinets, 2013). Therefore, semi-structured in-depth interviews were used in this research to gather rich data from green consumers. Multiple in-depth interviews were conducted face-to-face and on a one-to-one basis; through this approach, informants were encouraged to express more of their own views and feelings, which facilitated data collection and quality.

According to Bryman and Bell (2015), grounded theory emphasises the importance of “not starting out with too many preconceptions” or preconceived theoretical ideas, but to let them emerge from the interviews (p. 486); however, it is also important to avoid the situation that “the researcher cannot at least specify a research focus” (p. 488) or the risk of discovering what is already established (Belk et al., 2013). In order to gain a theoretical sensitivity (Goulding, 2002), the researcher has read prior literature to have ideas and better understanding related to the subject of study without stifling creativity (Myers, 2009; Takhar-Lail & Ghorbani, 2015). Though several pre-formulated questions were drawn based on prior literature to justify the research, no preconceived concepts were made.

The researcher prepared an interview protocol (See *Appendix 1*) with a list of topics to avoid confusion and help to steer the conversation into specific areas of research interest (Goulding, 2002). The interview protocol covered four main topics or four sets of questions.

The first question set asked informants to express their thoughts and attitudes toward environmental issues. The second question set asked their actual behaviours and motivations. The third question set probed informants on specific questions related to purchase of green products. The fourth group of questions explored green consumers' post-purchase satisfaction and behaviours toward green products. In addition, a 'fact sheet' information of a general kind (age, gender, education level, family size, occupation) were asked from informants, which is useful for contextualising people's answers (Bryman & Bell, 2015). Income was not asked as people might feel uncomfortable or reluctant to disclose or truthfully report their income (Warren & Karner, 2010). However, the majority of informants have mentioned their current economic status in their interviews by answering product-purchasing-related questions.

As semi-structured interviews are non-standardised (Saunders, Lewis, & Thornhill, 2009), some pre-formulated topic areas and questions were prepared before the individual interview to help answering research questions, however, the order of questions varied depending on the flow of the interview (Belk et al., 2013; Bryman & Bell, 2015; Saunders et al., 2009). Broad and general questions were asked at the beginning of the interview to let informants feel more comfortable and also a sense that they have plenty to contribute, followed by more specific questions to let informants provide more details (Cooper & Schindler, 2011). In addition, there was no strict adherence to those pre-formulated questions in the interview protocol; some new ones emerged as the interviewer picked up on things said by interviewees, to let them have a great deal of leeway (Bryman & Bell, 2015; Myers, 2009).

### 3.3 Selection of Informants

This section explains how informants were selected. According to Cooper and Schindler (2011), informants for interviews are chosen not because their opinions are representative of the dominant opinion, but because their experiences and attitudes will reflect the full scope of the issue under study.

Two types of approaches were used in this research to select informants, purposive sampling and snowball sampling. Purposive sampling is to sample informants in a strategic way; according to Bryman and Bell (2015), the researcher does not seek research informants

on a random basis but with a criteria goal in mind, and so that those sampled informants are relevant to answer those research questions. In this case, Both New Zealand and Chinese green consumers who are aged over 18, with green product purchase experiences, and also who are currently reside in New Zealand, were selected to allow the research questions to be answered. No other particular criteria were required, such as age, gender, education and so forth, they were left uncontrolled. However, that information was still collected for consumer profile purposes.

For convenience reasons the research was conducted in Christchurch, New Zealand, where the researcher is based. By choosing the same territory, the green activities and the availability are the same for the two groups for comparison (Laroche et al., 2002). The populations researched were New Zealanders and Chinese (who currently reside in New Zealand), who are aged 18 and over, and with green purchasing experiences. Green purchase experiences include the experience of purchasing or consuming green products such as (and not limited to) energy-saving products, degradable products, eco-labelled products, or products are made from recycled content or renewable energy. This means general consumers were excluded.

Those informants were purposively selected based on such unique experiences; and thus their thoughts, behaviours and feedback would be valuable to contribute to this topic area. A snowball sampling technique was used as a complementary method to help identify potential and possible participants. In other words, initial participated interviewees in the present study have suggested and referred the researcher to others who have characteristics, experiences, or attitudes similar to their own as new potential informants (Bryman & Bell, 2015; Cooper & Schindler, 2011). In addition, as one form of purposive sampling, theoretical sampling was used during the data collection process, which the sampling is directed by theory, the selection of further research informants were purposely selected based on the developing categories and emerging theory (Bryman & Bell, 2015; Goulding, 2002). According to Strauss and Corbin (1998) (as cited in Bryman & Bell, 2015), such sampling aims to discover much “variations among concepts” as possible and to “densify categories” (p. 431).

As theoretical considerations guide selection, interviews should be stopped once theoretical saturation has been achieved. Initially, the researcher respectively sampled one New Zealand informant and one Chinese informant to collect data, and also to see the way the interview protocol is working. The researcher adjusted the interview questions and wrote down field notes and memos to capture any insights made to see whether more data were needed. Theoretical sampling then continued; the researcher kept on collecting data by conducting interviews, analysing data, and constant comparison until reaching the tenth informant from both groups that there were no new theoretical insights being generated from new data. Followed by researchers' suggestions (Bryman & Bell, 2015), the emerging concepts in the present study have been fully explored and categories have been saturated with data that theoretical saturation has been achieved; and a total of twenty interviews were obtained.

### 3.4 Locating Informants

According to Saunders et al. (2009), by adopting the method of purposive sampling, the researcher can put up advertisements by using suitable media to advertise the need for participants and collect data from those individuals who are willing to take part in the research. The present research commenced in August 2015 after the approval from University of Canterbury's Human Ethics Committee was given (*See Appendix 2*). Two kinds of advertising were used for recruiting potential informants, print advertising (*See Appendix 3*) and e-advertising (*See Appendix 4*). The researcher left the contact detail in both of the two advertisements, and individuals who were willing to participate in this research have contacted the researcher to organise the date and time to conduct the interview. Those advertisements were posted in locations where green consumers were likely to visit, including Go Green Expo 2015, Piko Wholefoods, and relevant sites on social media (Facebook and Wechat) and Skykiwi.com.

Firstly, with the Operation Manager's permission, the researcher went to the field in person and sought participants by handing out printed advertisements to those who attended the Go Green Expo on the 16th August 2015 in Christchurch (Go Green Expo, 2015). Go Green Expo is the largest sustainable, organic, and green living expo, which promotes healthier and practical living options in New Zealand (Go Green Expo, 2015). The expo covers a great variety of green products and services, for instance, solar power, fair traded products,

local products, organic products, electric bikes and vehicles, and ethical investments; and also, it educates consumers on how to save money by adopting an eco-living lifestyle (Go Green Expo, 2015). Therefore, the researcher of this study assumed that people who attended this event would be interested in green products and services, and thus could mostly likely be potential or existing green consumers. Those who saw the advertisement and willing to participate in this research were then contacted for further interviews.

Secondly, the researcher planned to put up the advertisement and seek willing informants in Liberty Market, which is an organic retailer with a great variety of more than eight thousand products. However, permission was not granted. By chance, the first interviewee recommended the researcher contact another organic store, Piko Wholefoods. As most of its products and brands are organic or fair traded, which are different from the ones in general supermarkets, the researcher of this study assumed that people who usually visit Piko Wholefoods for shopping would most likely be green consumers. Printed advertisements were then handed out to consumers with the store manager's permission, and willing informant was reached for further interview.

New Zealand green consumers were reached through the Go Green Expo, Piko Wholefoods, social media, and snowball sampling; however, there were some difficulties in reaching Chinese informants. The researcher then decided to expand the contact methods, by putting up advertisements on Wechat, University of Canterbury Notice Board, and also a Chinese online community named Skykiwi.com, which is the biggest Chinese website in New Zealand, to reach further willing informants. To ensure further research informants were purposely selected based on the developing categories and emerging theory, several questions were then asked to screen for desired Chinese informants after they contacted the researcher.

Participants were contacted to organise suitable date and time to conduct the interviews. Except for respondent CN #1's, whose interview was conducted in her store, all other interviews were conducted either in discussion rooms in Central Library or the discussion rooms in Postgraduate Office at University of Canterbury, to ensure a quiet space and to ensure high quality audio-recording. Upon meeting, an information sheet (*See Appendix 5*) and a consent form (*See Appendix 6*) were given to each participant to read and

sign before conducting interviews. All interview conversations have been audio-recorded with each informant's consent, in order to provide with rich detail for future data analysis. Participants were informed that they were free to discontinue or withdraw their participation during or after the interview, and they can take any recorded research information and notes about them after discontinuing. Fortunately, none of these informants withdrew at any stage.

As previously discussed in the '*Multiple In-depth Interview*' Section, during each interview, the researcher read out the pre-formulated questions in the interview protocol and waited for each informant's responses and comments based on his/her thoughts and experiences. It was a semi-structured interview, the researcher listened to the informant more to allow the flow of the interview without interrupting much. After the interview, each informant has been offered a NZD\$20 Westfield Voucher to thank them for their contribution to this research. This funding source was granted from Master of Commerce program.

### 3.5 Data Management

In relation to those twenty interviews (See *Appendix 7*), four interviews lasted 30-ish minutes, seven interviews lasted 40-ish minutes, three interviews lasted 50-ish minutes, and five interviews lasted between 60-100 minutes. Though several lasted only half an hour, however, as the informants' speaking speed were fast and felt sure in answering the questions, their contribution was not devalued.

Each interview was audio-recorded on the researcher's mobile, and also on a laptop software as a backup copy. In total, there were twenty conducted interviews (ten New Zealand and ten Chinese informants) lasting from thirty minutes to ninety-six minutes. All twenty interviews were transcribed verbatim by the researcher by using the software 'transcribe', which speeds up the whole process; it works offline, it is secure and private (Transcribe, 2015).

The ten Chinese interviews were conducted in Chinese, as suggested that it is best for the researcher speaks the language in which the interviews are being conducted, and it would be comfortable for both of the researcher and the interviewee (Belk et al., 2013). Also, four of the informants said their English is not good so that it would be easier for those

informants to speak and express their thoughts to the researcher in their first language rather than in English, which other studies have done the same way (Abdul-Muhmin, 2007; Bryman & Bell, 2015; Chan, 1999; Chan & Lao, 2000; European Commission, 2013; Harris, 2006; Lemke & Luzio, 2014; Leonidou, Leonidou, & Kvasova, 2010; Riley et al., 2012). Those ten Chinese interviews were then transcribed, and translated into English by the researcher, who is from the same culture as informants; and as suggested, those interviews were interpreted of what the respondent meant to say, rather than translate literally (Goulding, 2002). Therefore, the data were transcribed into transcripts, which made up a total of thirty transcripts, including ten New Zealand transcripts, ten Chinese version ones, and ten Chinese translated ones for a total of 321 pages of transcribed interviews (*See Appendix 7*).

All above information gathered from informants was kept strictly confidential. The researcher has ensured that stored data is separated from identifying data (e.g. consent forms) to ensure that informants cannot be identified. The researcher has assigned informants a code on the consent form, and using that code on any data and transcripts. All notes, signed forms and electronic information gathered from informants were stored in drawers and password protected desktops in postgraduate office in University of Canterbury, which can be locked. All those data gathered from informants were stored in password protected files, and were backed up on the University servers (i.e. University email), and also in an USB that was locked in the postgraduate office. No data was stored in cloud services for security reasons.

Apart from the researcher and supervisor, no one else will have authorised access to the data. All gathered data will be stored in the researcher's supervisor's office, and the raw data of the project will be destroyed after five years for Master studies. Master thesis is a public document available via the UC Library database; and data gathered in this project will be anonymous and participants' identities will not be made public.

### 3.6 Data Analysis

This study was based on a qualitative approach, it emphasises words rather than quantification in the analysis of data (Bryman & Bell, 2015). A grounded theory approach was adopted for qualitative data analysis.

Qualitative data derives from interviews, which are all about transcribed textual material. Written interview transcripts were drawn from personal expressions by participants from the physical world (Cooper & Schindler, 2011); and all those empirical data are actually building blocks of the theory that is under development (Takhar-Lail & Ghorbani, 2015). All the transcribed interview data were coded and then analysed by the researcher; and the computer-assisted qualitative data analysis software (CAQDAS) *NVivo 10* was used for the whole coding process, which facilitated the coding and analysis process and retrieve of data (Bryman & Bell, 2015).

The qualitative data analysis in this research followed a classic grounded theory sequence. According to Strauss and Corbin (1990) (as cited in Bryman & Bell, 2015), the three steps in grounded theory approach are open coding, axial coding, and selective coding; and so that data analysis was made through codification, categorization, and interpretation of patterns and relations. The first step is open coding which refers to break down, examine, compare, conceptualise and categorise data (Bryman & Bell, 2015); and line by line analysis was used to help identify key words or phrases (Goulding, 2002). Open coding started with decomposing or fracturing the data into ad hoc codes or conceptual components, which were emerged inductively from the data collected (Bernard & Ryan, 2010). In *NVivo*, coding is made through “nodes”; the researcher began coding while browsing the data by using *Nvivo 10*, and individual independent “nodes” or codes were created along the way. As suggested, memos were used to document the impressions and help the researcher to crystallise ideas and thoughts (Bryman & Bell, 2015).

Constant comparison is a significant phase in grounded theory, which refers to “a process of maintaining a close connection between data and conceptualisation”, and it is a progress towards saturation (Bryman & Bell, 2015, p. 585). Concepts yield from coding were considered that how each one might be related to more inclusive concepts, they were then clustered into groups and merged for similarities and differences by constant comparison, which means categories were generated (Bernard & Ryan, 2010; Goulding, 2002). As mentioned before, theoretical sampling helped in selecting further research informants to discover variations among concepts. The Conceptual categories were then fully developed, or they have been saturated with data during the repetitive coding and constant comparison process, as new data no longer suggested new insights or dimensions of theoretical

categories, and therefore, no need to continue with data collection in relation to the categories (Bryman & Bell, 2015; Grbich, 2013). Again, as this study aims to answer questions instead of testing hypothesis, the researcher was open to whatever was read from the collected data and had an open mind to any sign that might be present in the data (Takhar-Lail & Ghorbani, 2015; Warren & Karner, 2010); and therefore, everything has been looked at and coded.

The second step is axial coding, which is to refine the conceptual constructs, a procedure for interconnecting the categories (Myers, 2009). In this process, according to Strauss and Corbin (1990) (as cited in Bryman & Bell, 2015), “data were put back together by making connections between categories” and this is done by “linking codes to contexts, to consequences, to patterns of interaction, and to causes” (p.586). Using axial coding, categories identified in this research were recursive, and they were interconnected and related in an explanatory fashion. According to Goulding (2002), the behaviour is embedded in the context. The researcher of this study developed two categories specifying the certain context that gave rise to green participating behaviour and green buying behaviour. A consumption barrier category, and a category for handling those barriers were developed. A category of consequences that lead to green repetitive purchasing behaviour was developed. These aspects helped understand the nature of green consumers’ pro-environmental attitudes and behaviours.

The final step is selective coding, which is to select the core category (or core variable) that is the central focus around which all other categories are integrated (Bryman & Bell, 2015). In this research, the nature of green consumers’ pro-environmental attitudes and their consumption behaviours were discovered; and there were five categories found as important, which will be discussed in detail in *Chapter 4 Findings*. Furthermore, Hammersley (as cited in Takhar-Lail & Ghorbani, 2015) pointed out, if built theories were described and explained correctly, the research study was considered as valid. As the theory and green consumer buying phenomenon was developed based on the empirical data collected and analysed, it established a deeper understanding of green consumer behaviour and reflected the reality. Therefore, according to Strauss (as cited in Takhar-Lail & Ghorbani, 2015), the findings of this research can be seen as credible, dependable, and reflecting those participants’ experiences.

### 3.7 Ethical Considerations

This research has been approved as a low risk process that does not gather information of a sensitive nature; and abides by the guidelines set by the University of Canterbury Human Ethics Committee. All participating informants are adults and are informed of the nature of the research. Each informant has been asked to read the information sheet and also to sign a consent form before taking his/her interview; and all informants are informed that their identity will be kept confidential. All participants are informed that during or after the interview, they are free to withdraw their participation and they can take any recorded information and notes with them after discontinuing. Moreover, all collected information of the project will be stored securely in the supervisor's office, and all these data will be destroyed after five years for Master studies. Also, Master thesis is a public document available via the UC Library database; and data gathered in this project will be anonymous and participants' identities will not be made public.

## Chapter 4 Findings

### 4.1 Demographic Summary

A total of twenty informants were interviewed and a summary of their demographic was provided (See *Table 1*). Among these twenty informants, nine of them are New Zealanders (except for informant NZ #8, who is from Europe), and ten of them are Chinese who currently reside in Christchurch, New Zealand.

The demographic information includes age, gender, education level, family size, occupation, how they were contacted, and how long Chinese participants have been in New Zealand. The age range is between 20 to 70 years old. Both males and females were interviewed; however, the number of female informants outnumbered the male participants, as seventeen of participated informants are female. There is a mix of education background, including Secondary School/Certificate, Diploma, Tertiary Study, Bachelor Degree, Master Degree, and PhD. Eleven of them are married, with nine of them having children. Informants' occupation background includes: undergraduate students, graduate students, therapist, health counsellor, housewife and mother, storeowner, baker, research technician, and writer, editor and publicist. In terms of Chinese informants, the period they stayed in New Zealand ranges from 2.5 years to 15 years. As this study was based on qualitative rather than quantitative, the demographic information collected was used for better understanding of those participated green consumers, rather than reside solely in occurrence number in frequency or to make assertions about all green consumer population.

**Table 1: Informants Profile**

#	Age	G.	Education Level	M.	Chi.	Family Size	Occupation	How contacted	Been in NZ
New Zealand Participants									
NZ 1	37	F	Did not Ask	N	0	4	Therapist	GoGreenExpo	

# Chapter 4 Findings

<b>NZ 2</b>	20	F	Almost finished a degree	N	0	5	Student	GoGreenExpo	
<b>NZ 3</b>	25	M	Tertiary Study 3 <sup>rd</sup> year	N	0	7	Student	GoGreenExpo	
<b>NZ 4</b>	23	F	Master	N	0	4	Student	Social Media	
<b>NZ 5</b>	65	F	Master	Y	2	11	Therapist	Snowballing	
<b>NZ 6</b>	32	F	Diploma +Bachelor	Y	1	3	Health Counsellor	GoGreenExpo+ Snowballing	
<b>NZ 7</b>	70	F	Bachelor	Y	0	1	Writer, Editor, Publicist	Piko Wholefoods	
<b>NZ 8</b>	25	F	Master	N	0	3	Graduate	Social Media	
<b>NZ 9</b>	43	F	Master	Y	1	3	Student	Social Media	
<b>NZ 10</b>	32	F	Master	Y	1	3	Housewife + Mother	Social Media	
<b>Chinese Participants</b>									
<b>CN 1</b>	50	F	Master + Diploma	Y	1	3	Storeowner	Social Media	15 yrs
<b>CN 2</b>	26	F	Bachelor	Y	0	3	Baker	Social Media	5.5yrs
<b>CN 3</b>	26	F	Bachelor + Diploma	N	0	4	Student	Social Media	5yrs
<b>CN 4</b>	24	F	Bachelor + Diploma	N	0	3	Student	Social Media	7 yrs

<b>CN 5</b>	26	F	Bachelor	N	0	5	Part-time Student	Snowballing	6.5 yrs
<b>CN 6</b>	47	M	PhD	Y	1	3	Research Technician	Skykiwi	2.5 yrs
<b>CN 7</b>	43	F	PhD	Y	1	3	Research Technician	Skykiwi	3.25yrs
<b>CN 8</b>	47	F	Secondary School/Cert ificate	Y	1	3	Housewife	Skykiwi	9 yrs
<b>CN 9</b>	57	F	Diploma	Y	1	2	Language Student	Skykiwi	12 yrs
<b>CN 10</b>	22	M	Bachelor	N	0	3	Student	UC Library Ads	4 yrs

Note: G.=Gender, F=Female, M=Male; M.=Marital Status, Y=Yes, N=No; Chil.=Children

## 4.2 Knowledge

There are two major influencers found in this research that have increased informants' awareness and led to attitude change toward green behaviours, they are 'knowledge' and 'important life event'. Knowledge will be the first to look at.

*Knowledge was found as the one of five critical factors in this research.* The knowledge consists of environmental knowledge and product/brand knowledge. During each interview, informant was asked on views and thoughts in terms of environmental issues; how s/he gathered the knowledge; how s/he got involved in green behaviours; and how long s/he has been practicing green activities or buying green products. By exploring these answers, this research found that the majority of informants already had some level of knowledge base formed through various means, including family influence, work experience, observation, books, expos, seminars and functions, workshops, Internet, and media (i.e. magazines, newspapers, brochures, social media, news, radio, TV, documentaries, and company advertisements).

Among those various means, many informants have formed some degree of environmentally consciousness through family's influence, and some of them were influenced by family from a young age.

#### 4.2.1 Family Influence

Family environment and parent's behaviours influenced both New Zealand and Chinese informants. For instance, one of respondent **NZ #5**'s eco behaviours is as she said, "I would say 99 per cent of my clothing, I either make myself or recycled". Parents of respondent **NZ #5** were born in the 1950s, and it was a different environment to grow up in those days and she was brought up "with making things", as she explained, "we had a philosophy which was unsaid but was there, if you need it, you make it yourself, if you cannot purchase it, or you do without" (Respondent **NZ #5**). Other informants were influenced by their mums, who raised their "environmental awareness", as they said,

Because my mum is a big, like environmental, she is not really an activist, but matters her a lot, so that is how I got into that as well. (Respondent **NZ #8**)

She is a preschool teacher, and one of her duties is to educate children on environmental awareness from a young age, and the thought is deep-rooted in her heart, which influences me more or less. (Respondent **CN #2**)

Knowledge was taught and passed down from family to children. In addition, the family environment could form people's environmentally orientated behaviours, such as participating in green activities or buying green products. Informant **CN #4** practiced water saving behaviour in China and this behaviour is still practiced in Christchurch, where the water is free. She described her behaviour and how it was formed:

I think I am doing really well in saving water. There is still water dropping once I have done my laundry and I always collect that dropping water to wipe floors.... Now the weather is still cold, so when turn on the hot water tap, there is usually cold water running for a while before it starts to run warmer. I always collect that cold water in a basin and use it for other purposes.... I always use rice-washed water to water flowers.... It is a habit since I was little. (Respondent **CN #4**)

In the same way, informants **NZ #4** and **CN #10** indicated that family influence had passed down their knowledge and eco buying behaviour to their children, as respondent **NZ**

**#4** said, “So I think the setting [of being “very eco conscious”] for me to continue to buy eco products”. When informant **CN #10** was asked that why he chose to use a certain brand of a green product, he said, “because my family has been using this brand for our house since I was young”.

#### 4.2.2 Media Influence

Media is a common source that influences people’s awareness and interest. For instance, informant **NZ #7** paid attention to and became interested in organic food thirty years ago by listening to a radio programme, where she learned about the “factories and the mechanisation of food, what that doing to people’s health and so forth”. Respondent **CN #3** used to think environmental thing “is kind of not my business” and she “did not have much feeling about it [air quality issues] years ago”. However, her awareness increased by acquiring the knowledge from media and by travelling in New Zealand with her mum. They have seen the environment here and felt the air quality difference between New Zealand and their hometown in China, and thus realised pollution “has been seriously affecting our daily lives”.

Media helps build knowledge. For instance, both informants **CN #8** and **CN #9** are now aware of healthy things they use and eat. Both of them talked about their personal interest in reading, and have gained the knowledge by a large amount of reading from the Internet. As respondent **CN #9** said, “because I have a habit of reading news every day, I usually spent hours every day on reading world news, and also Chinese news”. Respondent **CN #10** likes science-related reading, and he gained knowledge from various sources including web news, academic conferences, science/ popular-science and commercial magazines related to environmental subjects.

Media guides people’s behaviour in terms of participating in green behaviours or buying green products. Respondent **NZ #3** said he has learned a lot from a green magazine he subscribes to, which has “so many good ideas” and things he does not think about, as he stated, “it is just a magazine full of solutions basically. That sort of starts going, okay, yeah we can go and buy these products, and we can do this and that”. Similar things were said by respondent **CN #10** that the magazines and articles he often reads would provide “simple tips or suggestions but practical in life so you could apply. For example, you could make quite a big difference by using rechargeable batteries or LED light”.

### 4.3 Important Life Events

*Important life event was found as one of five critical factors in this research.* Except previously mentioned that knowledge is gained from ‘family’s influence’ and ‘media influence’, several informants also summarised that it is their ‘personal interest’ to pay attention to environmental issues and green products. By exploring further in those interviews, this study found that many informants have experienced important life events that influenced their personal interest and behaviours.

Usually, informants already possessed some level of knowledge in terms of environmental issues or green products from ‘family’s influence’ since they were young. However, it is the ‘important life events’ that helped build informants’ knowledge, or further enhanced their knowledge base for deeper understanding. For example, one of the important life events was education, which further enhanced their environmental attitude.

In addition, this research found the influence of ‘important life events’ has a bigger impact on informants than previous influences like ‘family’s influence’ and ‘media influence’. The following comments were drawn when informants were asked the same set of questions, for instance, where they got their knowledge from.

#### 4.3.1 Education

People can learn from their studies with no prior knowledge, and education builds both their knowledge and environmental awareness.

Both informants, NZ #2 and NZ #3, talked about the current study they are taking that has made a big difference in their awareness and thinking. Respondent **NZ #2** said she would not know a lot of stuff until this course; it is the course she took in recent years that “increases your awareness of stuff around you” and “until this course it never became a big factor in my life”. She also doubts she would do things differently as now if taking different degrees. The same as respondent **NZ #3**, who is also a behaviour change example, has mentioned quite frequently about the education course that he “just did not know about it” until he started studying. Education influenced his knowledge and attitude, and really got him thinking about “yeah how such a small thing can make such a mass of change later on”. Not only he has changed, but also he thinks the necessary of “spreading on that good behaviour” to others, as other people “see you doing it, they might start to do it too”.

Education not only creates people's awareness, but also builds their knowledge by getting people into personal research, and actively learning more about the information they are interested in. Respondent **NZ #4** has gained her knowledge from family since young, and she also mentioned that "knowing the knowledge and learning" more information at university influenced her. The same with respondent **NZ #6**, she knew the information during her diploma programme for nutrition, which gives her "lot of references to be able to go searching for research papers, and different articles and books, and things like that". It has become her "interest in eco living and living sustainably", and she goes to eco-friendly events such as "seminars and functions like that, that expo we just had in Christchurch" (Respondent **NZ #6**).

As previously mentioned, respondent **NZ #8** was influenced by her mum since young, however, it is the study she did at university really got her into deeper understanding about things and led her to significant behavioural change:

I used to travel with my mum to China a couple of times, visiting factories and things, and some of the factories there were quite horrific.... But at the time, I was not really, I thought 'oh sustainability, what is that green happy stuff'? But then I was just like reflecting on it, and then that actually help me understand things better when I did my research. (Respondent **NZ #8**)

My clothing shopping behaviour changed significantly after I started my research, yeah. So it did have an impact on me, once you just dig in, and you actually just realise what is going on. I try to keep it up whenever I can. (Respondent **NZ #8**)

The same situation applies to Chinese informants; education increases their awareness and builds their knowledge. Respondent **CN #6** acquired all his degrees in China in Agriculture Science, and he has worked in this area in both China and New Zealand. The "accumulated knowledge" he gained from educational courses and work have enhanced his awareness, and influenced his behaviours in healthy eating and in organic vegetable growing (Respondent **CN #6**).

#### 4.3.2 Health Concerns

There is also an increase in awareness and strong attitude change toward green behaviours in many informants who have health concerns or actually have suffered health issues.

Both New Zealand and Chinese informants have suffered skin-related problems. Respondent **NZ #1** is aware of and also has a “personal interest” in making or buying green skincare products and things, as she said, “my awareness of skincare products and the ingredients has been since as a teenager. I have had a lot of skin issues”. Three or four years ago, informant **CN #2** suddenly got an allergic reaction on her face for a period of time, as she noted, “by then I found some cosmetics products I have used previously did make my skin worse”. The same as another respondent **CN #4**, based on what she has heard from people around and the media, and also from personal experiences, she explains that she “hates all those chemical stuff”, because “especially those chemical ones, I am really allergic to those ones”. Informant **NZ #9** does not have skin issues, however, she is still aware of the product she uses, as she explained,

I had a surgery not that long ago, and I had other surgeries, and I am always conscious of what I put on my skin. Because it goes through the skin into your body, and I like to use something very basic. (Respondent **NZ #9**)

Other than skin issues, several participants have suffered health problems and so that they usually paid attention to the food they eat, and things they use. Respondent **NZ #5** has got artificial knees, and her husband had a stroke about ten years ago that he is on medications; and both of them pay attention to the food area. Moreover, health issues are much concerned by Chinese informants, as respondent **CN #9** explained,

A as for me, my health condition is not always good, and so I am well aware and always pay attention to a healthy diet and the use of healthy products. I have been doing my own research on food and diet since my husband got cancer. When he was diagnosed with multiple cancers, his first doctor told him that he could live maybe for a week, or at most, four months. (Respondent **CN #9**)

#### 4.3.3 Overseas Travel

Some informants, and especially Chinese informants found that overseas travel increased their awareness and attitude change toward green behaviours. Respondent **NZ**

#10 lives in New Zealand for most of her life, but she has also lived in other countries for several years, where she has seen many kinds of pollutants. Such “impact of pollution” influences respondent **NZ #10** toward eco behaviours, as she stated, “just thinking about those things I have seen, they impact my choices”.

Overseas travel in particular has had a big impact on Chinese informants living in Christchurch; they view New Zealand as a pure and clean country and they think what people do here are really positive to the environment. Nearly all Chinese informants have talked about all the positive differences they have seen and experienced in terms of environmental awareness and environmentally orientated behaviours. For example, through the new habit of waste sorting, respondent **CN #4** realised “it is a really good thing to do”. The same thing said by respondent **CN #3**, who thought environmental thing “was just a conceptual thing” to her and was not aware of it as before. However, respondent **CN #3** has “learned a lot” after coming to New Zealand, from both class and also the “environmentally conscious host family” she lives with, as she explained, “I have heard what they said about it, and also I have seen them doing it as well.... their influence on me is quite big because I think they do walk the walk” (Respondent **CN #3**).

Knowledge gained from overseas travel enhanced informants’ environmental awareness. Respondent **CN #7** was not environmental aware when she was in China, and she felt of a change in her environmental awareness of becoming “much more stronger than before” since she came to New Zealand. Such change occurred because she found “people here are doing great”, also she is impressed and has learned more about waste sorting, garage sales, and even from her local library that promotes “reduce, reuse, and recycle” (Respondent **CN #7**).

#### 4.3.4 Control of One’s Environment

When informants were asked ‘how long they have been using green products’, this study found that the ability to control their environment was mentioned quite often by many informants. The ability to control their own environment led to their eco buying behaviours. For example, respondents **NZ #1**, **NZ #2**, and **NZ #4** expressed the same viewpoint that by living in flat or moving flats, they have more control of the environment or “having the authority to buy certain products”. Similar to Chinese informants, as they have come to New Zealand and started living on their own, they become the purchaser or

decision maker and have to buy things themselves, for example, as respondent **CN #3** said, “When I was in China, my parents would buy most things”.

#### 4.4 Awareness

As previously discussed in Section 4.2 and 4.3, knowledge and important life events created/ increased environmental awareness and attitude change toward green behaviours in many informants. In addition, not only ‘knowledge’ can lead to ‘awareness’, but also ‘awareness’ can go back and strengthen ‘knowledge’.

Based on those interviews, the evidence showed that once those informants became aware of an issue, they would be actively research information and much likely to know more into it through various means, which builds their knowledge through time and allow them to do better towards a certain lifestyle. For example, by having the awareness, many informants initiatively go to relevant expos, seminars and functions, workshops and talks, join groups and discussions; and almost all informants have done their research and readings towards their interested environmentally friendly topic, issues and products.

#### 4.5 Emotions

By being aware of environmental issues and having environmental knowledge, this can influence informants’ emotions.

Both respondents **NZ #2** and **CN #3** felt “angry” by knowing the environmental issue and knowledge; respondent **CN #3** is “getting much angry” about environmental pollutions as they are affecting many people’s daily lives in China; and respondent **NZ #2** get “angry at the world” and “get frustrated” with what she cannot do, especially now as a student. Respondent **NZ #3** felt “sad” with himself as certain things he could not afford to do the environmentally appropriate way. Respondent **NZ #10** felt “guilty” for lots of things she do, such as throwing stuff rather than reusing, driving her car, taking an airplane, using a product that is not marketed as an environmentally friendly product and etcetera. Respondent **NZ #4** felt “depressed”, “worried” and “disillusioned” by reading “a lot of the environmental problems that happening at the moment”, as she said,

I feel like I take on those problems personally, and so can be quite depressing and I feel quite disillusioned sometimes. I hope that there is a solution, but sometimes I worry that we will not be able to collectively to find a solution. (Respondent **NZ #4**)

Though there are many things they could not do about, those informants are still trying their best and making their efforts and changes in what they can do.

#### 4.6 Attitude

‘Emotions’, ‘knowledge’, and ‘awareness’ lead to attitude change towards pro-environmental behaviours and green products, which means informants like participating in green activities and green purchases, and dislike non-eco-friendly behaviours.

In addition, more than half of all informants hold a positive attitude that they can make a difference; and several of them hold negative or mixed attitudes that they cannot or they can only make small changes according to environmental issues. However, all informants have been involved in practicing green activities and green purchases for a period of time; they pinpointed that they enjoyed and they will keep contributing their efforts as they can; and such motivations are listed in the *4.8 Motivation* section in this paper.

#### 4.7 Actual Behaviour

Many informants said that they are influenced by having the ‘knowledge’ or experiencing ‘important life events’; thus, they do take their choices into considerations. Their behaviours were categorised into two major groups in this study, practicing green behaviours and purchasing green products.

##### 4.7.1 Practicing Green Behaviours

The environmental behaviours that respondents have participated in including creating conversations to spread the behaviour, recommend others of green products, 3R (Recycle, Reduce, Reuse), compost (i.e. garden & kitchen waste), gardening (no-spray, grown own vegetables, worm farms), saving energy, saving water, vegan or vegetarian diet, tree planting, and voting. For the ‘reduce’ behaviour, informants have talked about reducing their use of plastics, driving, buying, waste, landfills, and wastefulness. There are participants who pursue simple lifestyles in that they try to reduce product usage and wasteful behaviours; or even stop buying but making their own, and they only buy certain products when they cannot make themselves.

#### 4.7.2 Purchasing Green Products

Participants have bought a range of products that are marked as sustainable, ethical, or green. For instance, eco/rechargeable batteries, biofuel, cleaning products (dishwashing liquid, laundry detergent, kitchen cleaner, organic cloths, spray and wipe, toilet cleaner, washing balls, and window cleaning products), commodities (body wash, shampoo, skin care, makeups, soaps, conditioners, cosmetics, hair dye, hand-wash, menstrual cups, tissues, toilet paper, toothpaste), environmentally friendly stationary, free range products, natural food products, organic food, Fair Trade and Trade Aid products, sustainably logged products, energy saving products (light bulbs, dryer, fridge, microwave, washing machine, TV, LED), solar panel, natural/sustainable sourced fabrics, products are made of recycled content, garden products (organic compost, bio control agents, natural sprays, eco supplier seeds), eco-friendly paint and house interior finish materials, fuel-efficient vehicle, locally grown/made, recyclable/less packaging products, reusable shopping bags, second-hand furniture, and second-hand clothing.

#### 4.8 Motivation

*Motivation was found as the one of five critical factors in this research.* There are three categories of motivation summarised from participants, when asked questions like ‘what are your current contributing green behaviours’, and ‘why do you behave environmentally orientated behaviours’ or ‘why you buy those green products’. The three major categories of motivation are environmental concern, psychological benefits, and obligation and responsibility. Those three motivational factors are usually blended together in that each individual informant usually holds more than one motivation of doing so.

##### 4.8.1 Environmental Concern

All informants said the reasons behind their behaviours are because of environmental concern that it is nice for the environment.

Informants said they want to reduce rubbish and reduce their impact on the environment. Respondent **NZ #2** has started using menstrual cups instead of throwing stuff out because “that is probably actually the biggest thing in terms of impact”. Respondent **NZ #6** thinks “we over consume” and “overuse resources that are available to us to the point of depletion”, she is doing a range of things because “it is just my priority more to be sustainable, eco-friendly, healthy, holistic living for myself, but also reduce my impact on the

environment, just it is karma". Respondent **NZ #5** has seen and learnt lots of environmental changes and that lead to her concern, she said "I suppose the knowledge of how our world works as far as our consumption, the consumer and what damage they doing, to the world. That sips into our consciousness and affects our choices". Respondent **NZ #10** always choose things with less or even with no packaging, as she explained, "I cannot stand having lots of plastic bags" because "if I put all those plastic bags in the rubbish, they all just gona go into the ground and they are not biodegradable".

Respondent **NZ #4** is having vegetarian diet, and her consideration for that is because of the pollution that animal farming brings, as she articulated,

So some people do not like eating dead animals, but it is not what that is hard for me, it is not eating the dead animals, it is the environmental thing. I do not like to purchase the meat and giving money to that industry, which is then they producing more greenhouse gases than it should be, and also because they pollute the freshwater, streams, and rivers very much, the water security. (Respondent **NZ #4**)

Both of respondents **NZ #8** and **CN #8** have mentioned green dishwashing liquid and laundry products they are using, both of them also mentioned those traditional cheaper products, but they expressed the same view that they will not compromise on these products because they are harmful to the environment and waterways.

#### 4.8.2 Personal Benefits

Other than environmental concern, there are some personal benefits of being involved in green behaviours. Many informants mentioned psychological benefits, and all informants mentioned health and economic benefits; and usually there is a combination of several benefits for each informant.

##### *(1) Psychological Benefits*

The psychological benefits of involving in green behaviours that informants have talked about include to ease guilt, to feel good/better, to be ethical, try to make a difference, and to be an example to spread the behaviours. Among these psychological benefits, 'to ease guilt', 'to feel good/better', 'to make a difference', and 'to be an example' were found frequently in many New Zealand informant responses.

Respondent **NZ #1** gained knowledge from the media, and she is well aware of the things she use, consume, and dispose of because she has read articles about people's rubbish being shipped and dumped overseas, as she explained, "that is what eases your guilt really, if there is guilt, I am sure there is, depends how well the media is working".

Respondents **NZ #2**, **NZ #5**, **NZ #8**, and **NZ #10** said they are doing so because they want to do what they can for the environment, and it makes them feel good/better. For example, respondent **NZ #8** said "I want to feel good about myself on the things that I buy", "to live with myself", and "trying to make the best that I can at the moment given my limited funds". The same said by respondent **NZ #10**, who does not feel like what she is doing makes a difference, however, she explained the reason of still doing so, "maybe the best thing is that I feel better if I take choices which are environmentally friendly".

By studying more about the environmental issue and with accumulated knowledge, respondent **NZ #4** has a consistent attitude and behaviour because she wants to make a difference by being an example around people, as she said,

Because I have done so much reading around pollution, climate change, and waste management all of those things. I think that would not be congruent for me to then go and buy these horribly non eco-friendly products, it would not make sense to me. And part of me hopes that it makes a difference. I do consciously realise that realistically myself, as an individual may not make the difference. But as principle I do that, and then the happy buy product would be an example to the people that I meet, and the people around me. That would be nice and that also happened.  
(Respondent **NZ #4**)

In terms of Chinese informants, respondent **CN #3** fits into the 'feel good' benefit as well. Respondent **CN #3** usually buys milk from local farmers market [in Christchurch] in reusable glass bottle, and return the bottle for reuse. According to this behaviour, respondent **CN #3** said she not only likes the milk there, but also "enjoy the feeling of participating in all those reuse and recycle activities".

For other Chinese informants, the psychological benefits are more on the 'to ease guilt' and 'ethical' aspects. Respondent **CN #1** has been a vegan for more than ten years

once she realised we should not eat or drink animal products on an ethical level, and she felt “no pressure or guilt” when eating products that are labelled as ‘dairy free’ or ‘no cruelty’. Similar to respondent **CN #2** who raises a cat, and she felt “terribly sad” after watched an animal fur video, as she said, “I was keep thinking of my cat, I really cannot bear it”.

## **(2) Health Benefit**

Except for the ‘psychological benefits’ reason, health benefit is another frequently mentioned motivational factor by both New Zealand and Chinese informants.

Respondents NZ #1, NZ #2, and NZ #6 said they make or buy green products because they want to reduce chemicals for better health. As Respondent **NZ #2** said, “for me, it is a big health thing to use cleaner products around your house or whatever”. Same as Respondent NZ #6, who is well aware of the products she use, and she knows clearly what is in her food, toothpaste, and green cleaning products etcetera. As respondent **NZ #6** articulated, “when I’m cleaning with them, I don’t feel like I’m inhaling all these fumes, and poisoning myself just from the smell alone, just for the sake of clean spotless home”. Respondent **NZ #9** has a dishwasher at home but she likes washing dishes by hand, so she buys green products because “I wanted it mainly because of skin, and some of them can be quite harsh on the skin”. She also likes wool and merino, because “it’s good for the skin again” (Respondent **NZ #9**).

Respondents NZ #5 and NZ #7 are well aware of the food they eat. Respondent **NZ #7** does her shopping mostly at organic shop, as she explained, “I don't have big salary, I don't have a lot of money, but I feel food is important, that's my health. So why not pay a little bit extra, to get healthy food”. Similar to respondent **NZ #5**, who has been to local organic shops to buy an organic product where she finds the cost is three times of what she could buy from the supermarket, but she bought it, as she explained, “because we are aware of our health, we would be called sensitive in a way, because of that awareness.... I think it's the health and the lifestyle choices which we are well aware of as consumers” (Respondent **NZ #5**).

The same reason applies to Chinese participants, and in addition, ‘health benefit’ was most frequently mentioned of why they have been buying green products. Respondent **CN #2** talked about a shampoo product, though she felt her hair does not ‘look’ that smooth as before, however as she said, “it is very healthy.... not feel like piling chemicals onto your

scalp". **CN #5** is flatting on a farm with others, and they always by organic compost for the land not only because of preserving the land, but also "there will be a change in that soil texture using that chemical stuff for long term, which then influences back to the vegetables you grow" (Respondent **CN #5**).

Furthermore, respondents **CN #6**, **CN #8**, and **CN #9** mentioned the 'health benefit' reason as well, and they also emphasised that it is the most important factor considered when purchasing green products. Respondent **CN #6** prefers plant-based products, as he explained, "maybe because I learned about many traditional Chinese medicines and plants, and I know they are good for humans". In his purchasing considerations, respondent **CN #6** emphasised, "it is the health factor ranks the first after all" and "I don't care how cheap the product is, even you give it to me for free, I don't want it, yeah". Respondent **CN #8** said, "health is the top priority; and by protecting the environment, it is actually a way of protecting our health". She involves in green purchasing behaviour because of a win-win situation, as she said, "environmentally friendly products are good for the environment, and good for us as well, so why not get it?" (Respondent **CN #8**). Another Respondent **CN #9** articulated the same point, as she explained,

Within my financial ability, I definitely buy the organic, healthy, non-additives food products. As I'm spending the money on healthy food products for now, I may take less medication in the future. No matter how long I could live for, at least I want to be healthy at the present stage, which is very, very important to me... I try to stay in a good health condition, not even say to extend my lifespan yet, but to extend my health span. (Respondent **CN #9**)

### **(3) Save Money**

All informants from both groups pointed out that by participating in green behaviour and purchasing certain green products lead to economic benefits, which means it saves money for them.

Respondent **NZ #2** has a worm farm, compost, and vegetables grow at home because "saves you money as well as you having locally grown stuff". Respondent **CN #10** always carry his metal bottle with him because "I've found the bottled water here are expensive, and also the tap-water is drinkable and it is free, so you can just refill your bottle".

Respondent **NZ #5** has mentioned several reasons of green purchasing, and one of them is economic reasons, like she said, “we buy second-hand as much as possible.”

Respondent **NZ #9** said they always buy cars that are “very fuel efficient, it is cheaper to run also”; and they have recently bought “the best rating dryer” because as she explained, “I don't use it often. But I don't want it to use too much electricity and it does”.

The same reason said by Chinese informants, they found by purchasing certain green products, it saves money. Respondent **CN #4** usually gets refill packaged ones for her green product, because “it saves money”. Respondents **CN #2, CN #4, CN #6, CN #7, CN #8, and CN #10** expressed the same viewpoint that eco-friendly household products are actually saving money in long term view and they do not have hesitation in purchasing them, just like **CN #6** said “it is economic benefit in long term, though it is relatively more expensive, it is cost-effective”. Another respondent **CN #7** always buy energy saving light bulbs, though it is expensive, but as she said, “it lasts very long”. Also, as Respondent **CN #2** noted, “you are making your contributions to the environment, and you are receiving benefits back as well”.

#### 4.8.3 Environmental Obligation and Responsibility

Other than ‘Environmental Concern’ and ‘Personal Benefits’, the third motivation factor is participant’s feel of their own obligation and responsibility.

Respondent **NZ #7** felt even she could not able to do everything, but as she said, “I do try, do where I see that I can do something”, and this is because, “I feel we've all got to do what we can, think globally at locally”. This motivational factor applies to Chinese participants as well, respondents **CN #2** and **CN #10** said that people need to think about the environmental impact on future generations, as they stated, “as a citizen, we have our responsibility” and “we do what we should do”; and this is also why respondent **CN #8** always rigorously follows the waste sorting rules written on the city council brochure.

As previously discussed, majority informants have mixed motivational factors behind their behaviours. For instance, respondent **NZ #10** involved in green behaviours not only because of the psychological benefit of ‘feel better’ and her ‘environment concern’, but also the responsibility of participating in green behaviours, as she said,

I want future generations to be able to enjoy this earth as much as I do.... I feel like if lots and lots people were very careful about the way they lived, it could make a

difference. I don't feel like what I'm doing makes a difference at all, but I still feel an obligation, to respect the environment.... I also think it's our responsibility as humans to look after it. (Respondent **NZ #10**)

#### 4.9 Consumption Barriers

From this section and the following three sections, *4.9 Consumption Barriers*, *4.10 Consumer Consumption Strategies*, and *4.11 Repetitive Purchasing Reasons*, are not related to practicing green activities, but only to green consumers' purchasing behaviours.

Eight informants expressed that there were no barriers in purchasing green products. Whereas most of other informants found that 'price' and 'trust' were the major barriers that sometimes prevent them from purchasing green products.

Some informants found the price of certain products are too expensive to afford. Respondent **NZ #3** have considered purchasing energy rated washing machines, but they ended up purchased the cheapest one, because as he said, "we just don't have the money to execute it yet". Price is also the factor he felt "sad" about himself as previously mentioned in *4.5 Emotions* because as student "we are normally the ones who learning about all these stuff, but don't have the money to do anything about it at the time" (Respondent **NZ #3**).

Informant **CN #6** said he always buy refrigerator and other general household items for energy saving ones. He has one solar panel at home in China and found it is "good indeed", however, it is not likely for him to purchase it here in New Zealand because of the price, as he said, "but I've heard that they are quite expensive, I don't think I could afford that".

Trust is another barrier for buying green products. Respondent **NZ #8** expressed her concern while choosing green products with "decent labels" that "even with third party certifications you don't know if that is a wishy-washy or not". Respondent **NZ #9** used to trust green products easily by looking at the name, but she said "not any more", as she "started to pay more attention to it in the media and research", she found that not all green products have to be true. Respondent **NZ #9** said "I would like to buy more", however, they need to be "truly environmentally friendly", as she articulated,

When they come out in the media you find out about them, it puts you off, and I think it's really bad for the industry, because sure, some companies do what they say

they do. But it is very hard to differentiate between, and you normally pay premium for these products.... So yeah, I think it's the industry that needs to clear itself up.... it would be much easier for people to look at, saying 'I'm happy to pay a little bit more, because it is really more considerate to our environment'. (Respondent **NZ #9**)

#### 4.10 Consumption Strategies

*Consumption Strategies was found as one of five critical factors in this research.*

There are several consumer consumption strategies summarised from informants' responses on how they chose their green products; these consumption strategies are 'information search' before buying, look at 'labels', look at 'product packaging', 'brand', 'price handling', and buy from 'trusted place'.

##### 4.10.1 Information Search

When informants were asked how they knew their green products, this study found that only two informants have paid attention to environmentally friendly products advertisements, most of them knew their products from three major channels, shopping in store, online search, and word of mouth.

##### *(1) Shopping in Store*

Sixteen informants said they knew certain green products in store. For convenience reason, both New Zealand and Chinese informants usually go and seek products out in the supermarket, and notice their green products when passing by the shelves. Respondent **NZ #6** said she had been to the local organic shops to search products out, and she said "just learning about the products from being in the store is really how I found out a lot of the products, lot of brands". Respondent **CN #7** said she knew all the information and all kinds of products in store when she was buying the energy saving refrigerator.

##### *(2) Online Search*

Most informants have mentioned that online search is a good source for finding information and evaluating products. Respondent **NZ #2** said she was planning on a bamboo toothbrush where the Internet is "a really good source" for it; and good to be able to "compare and learn stuff". Respondent **NZ #4** said her way of getting green product information is "always the Internet", and "it's the most convenient way of information search for me". Respondent **NZ #8** checks how sustainable the products are by looking up online. Respondents **CN #2** and **CN #10** usually go to the company website to look up for

information, evaluate and compare products. Respondent **CN #9** feels “very grateful to the Internet” as her English is not good, but she can use the Internet to search information and look up the translated meaning. Once there’s too much information written on the product that she could not understand or make a decision, she explained, “I take a photo of it instead of buying it first, and then I search those words online after I got home by using my computer to get the right product” (Respondent **CN #9**).

### *(3) Word Of Mouth (WOM)*

More than half of all informants said they knew certain green products by word of mouth. Respondent **NZ #1** said she discussed with colleagues, friends, referrals, and clients. Respondent **NZ #10** said when an electrician did some work in their house, they were “strongly suggested” to get LED because “it's much brighter, and it takes much less energy”. Respondent **NZ #8** said she would listen to people who have tried the products to get a “true opinion”, as she explained,

If I know people who used the products, or wrote reviews on Facebook and things, I would rather read through all these things, or talk to people who have used it before.... One of the outdoor retailers, they're only good with certain things. But you only know that because you talk to people who experience these things. So I'd rather try to get a proper, a true opinion, and not really believe commercials, which is really hard, because some of them just look amazing, and they create this desire ‘you just need it’. (Respondent **NZ #8**)

WOM was also found to play an important role among Chinese informants that nearly all Chinese informants have listened to people’s opinions and green product recommendations. For example, respondent **CN #9**’s son recommended her with a green cleaning product brand, and she has started use other products under that brand as well. Most of respondent **CN #5**’s green products mentioned in the interview were recommended by friends; she often chats with others before buying because “there are too many alternatives”, and she would “definitely pay attention to the one that all friends are recommending”.

Respondent **CN #6**’s solar panel in China is one of the recommended products by others; he made the purchase decision after he went to his friend’s house to see it and then he went to the retail shop to see it. The same reason applies to respondent **CN #8**, she

started using green products XXX in her 20s when she was in China after other's recommendations, and now those green products she uses in New Zealand are from her friend's recommendations as well, as she stated,

When I was living in China I always bought XXX, absolutely not getting other dishwashing liquid brands. I used to get them shipped from China [since I lived here in New Zealand] from the person I know who sells XXX, it's not convenient. Now I find this green brand here, I don't need to bother others anymore... Actually I'm not familiar with this green brand either, but someone did introduce me to it.... Her baby's eczema was gone since she changed to this laundry detergent brand.  
(Respondent **CN #8**)

#### 4.10.2 Labels

Ingredients were mentioned frequently by both New Zealand and Chinese informants, when they were asked how they chose their green products. Respondent **NZ #1** said she always follows her instinct that "if I pick something up, I don't like the ingredients, I don't get a good feeling with it, I don't buy it", and she would "look at both what's not in there, what's in there, because they always make it sound better". Respondents **NZ #2**, **NZ #7**, **CN #1**, and **CN #6** would look at several key ingredients contained in their products, and they would not buy if those products indicate unethical, or it's not good for users and the environment. Respondent **NZ #8** always compares ingredient list between different green brands to determine the more sustainable product.

Especially respondent **NZ #6**, who claims herself as "a big ingredient list person", she checks ingredients carefully with her "little alphabet app" because she knew things get "changed and renamed", and some ingredients in New Zealand are "just a number", as she said,

So I have my little app with all the numbers, decodes and tells me in words what it is, and I go through and look, but it takes me awhile... Mostly it's reading the ingredients list, looking for the fewest number of ingredients, and most wholesome. So whether it's cleaning products or foods, non-toxic, natural, biodegradable ingredients as possible.... if they're New Zealand grown, at least the chances of them being over preserved are as less than the alternatives. (Respondent **NZ #6**)

Key terms are also mentioned by many informants. For example, respondent **NZ #7**

said she “only buy toilet paper that says it’s been either sustainably logged or things like that”. Respondents NZ #6, NZ #9, CN #4, CN #6, and CN #9 said once they saw name-telling wordings such as ‘eco-friendly’, ‘environmentally friendly’, ‘organic’, ‘original’, ‘green’, ‘no animal testing’, ‘no preservatives’, ‘non GMO’, ‘five years guarantee’, ‘energy saving’ and so forth, they tend to grab and read more about them. For another example, when buying energy saving light bulbs, informants would not know the performance after they have tried; and based on such situation, respondent **CN #6** for instance, is more likely to buy longer lifespan guaranteed ones. However on the other hand, respondent **NZ #6** has different responses as she pointed out, “I never just buy it because it says eco-friendly”, and she would “always read the ingredients list anyway”.

#### 4.10.3 Packaging

Nearly all informants from both groups would look at the product packaging to see if it is recyclable. In particular, ‘to look at the packaging’ has been frequently mentioned by New Zealand informants, they pursue recyclable, simple, less, or even no packaging when buying products.

Many New Zealand informants expressed the same point of view that they do not like plastic packaging. Respondent **NZ #7** said she usually buys XXX products, and she has noticed “they have changed from having glass bottles to plastic” since they got bought by big companies which she thinks “is not so good”. Respondent **NZ #8** said she likes a particular green brand, but she does not like its product packaging as plastic, where she has to make a compromise, as she stated,

That's one problem I have with XXX, because they still come with these huge plastic bottles, I don't really like that. But then I made the compromise because I know what's in it it's good, and you probably can, recycle the packaging. (Respondent **NZ #8**)

Informants NZ #2, NZ #6, NZ #10, and CN #4 said they prefer paper bag or cardboard packaging. Respondent **NZ #2** said sometimes she really does not want to buy things because “might be something that is packaged badly”; and for the same priced green product, she would choose “the cardboard box over something with a plastic bag in it”. Respondent **NZ #10** said, “I'll buy something that's wrapped in paper or cardboard rather than plastic, because I guess it's more renewable resource than plastic”. Respondent **NZ #6**

said “packaging would be huge thing for me”, and “plastic kind of wears me out, it's hid traded, you never know where it's been travelling”, as she explained,

So flower in brown paper bags for instance, it increases my trust as more wholesome, the chances of going through all those processing it's way less. If things came in jars for instance, instead of cans, I would be more likely to trust that there's no liner, like chemical liner, preserving it. (Respondent **NZ #6**)

Informants **NZ #1**, **NZ #6**, **NZ #9**, and **NZ #10** said certain products with simple packaging or even no packaging would be nice to choose. For example, respondent **NZ #1** said “flashy” in green products “doesn’t really interest me”. Respondent **NZ #9** said she used to be “quite conscious of liking things”, the look of things and a nice packaging were really easy to get her liking the product. However, she said “not any more”, she does “not care that much about packaging now, the simpler, the better, if I can get refill, I'm quite happy to refill things” (Respondent **NZ #9**). Respondent **NZ #10** mentioned frequently about product packaging in her interview, she tends to choose products with recyclable, less, or even better with no packaging. As respondent **NZ #10** said,

For example if I want to buy a cucumber, I'll choose one that it's not wrapped in plastic, rather than one that is already got the plastic around it... even if something it's not marketed as environmentally friendly, I feel like, if it doesn't have any packaging at all, it's better. But if the packaging or the material can be recycled, then I'll tend to go for those ones. (Respondent **NZ #10**)

#### 4.10.4 Brand

Many New Zealand and Chinese informants said that brand is factor of consideration when they buy green products. Informant **NZ #4**'s criteria is to buy green products from independent and local business, as she explained,

I try [to] buy the ones that are independent, not one that is owned by another parent company that isn't eco-friendly. If they have a parent company that is also eco-friendly, that's okay. But if I buy the eco-friendly products from XXX for example who is a big parent company has all sorts of cleaning and hygiene products and so forth, the money that I pay for that products go back to XXX, and I just don't agree with that. I don't think it's ethical, that's why I'd rather buy local, and I'd rather give

my money to someone who's making real eco-friendly products, and help them keep on going. (Respondent **NZ #4**)

Chinese informants CN #2, CN #6, CN# 7, and CN #8 consider brand as well when they make purchasing decisions. Respondent **CN #6** said he did “care the manufacturer’s reputation and brand” when he bought his environmentally friendly household items. Respondent CN #2 said she puts more trust in “big well-known branded products” in China and that is because “there are too many companies, brands, and products in China with varied quality standards, and thus [by comparison] the overall product credibility [in China] is relatively lower than New Zealand ones” (Respondent **CN #2**).

In addition, nearly all Chinese informants said they tend to trust certain New Zealand product brands and labels more than the ones in China, and this is usually in the food/ wellbeing/ commodities/ cosmetics (skincare) product categories. Respondents **CN #8** said in terms of skincare products, she does not even trust big multinational brands, but prefers buying local New Zealand products as she believes they have relatively more “stringent regulations and rules on industry codes” (Respondent **CN #8**). Such New Zealand brand trust situation applies to respondent **CN #9** as well, she goes back to China occasionally, and when she was asked ‘how to choose environmentally friendly products when you go back to China’, she said “I always buy products here and then take them back to China, so like my families in China, they are using the same products as me” (Respondent **CN #9**).

### 4.10.5 Price Handling

As a wide range of green products are involved in this study, and the price range of these products can be large; some of these products are perceived as cheap, some are perceived as regular, and some are perceived as expensive. Generally speaking, many informants perceived most green products as expensive. However, a lot of them have found their ways of handling expensive prices, including ‘just buy’, ‘wait for discounts’, and some other ways for ‘non-switching back behaviours’.

#### (1) Just Buy

Though some products are perceived as high, however, because of the previously discussed motivational factors in Section 4.8, fourteen informants said they just buy the products. The following responses were gathered when informants were asked ‘how did you manage those expensive products?’.

Informants **NZ #5** and **NZ #7** pay for the relatively expensive food products because they want to get healthy food. Respondent **NZ #5** said she is “so well aware of the budget”, however, she still buys certain products in organic shops where the price is much more expensive than the ones in supermarket, because as she said, “I’m very much health orientated, we are aware of our health”. The same situation applies to respondent **NZ #7**, she usually does her shopping at local organic stores, because “I feel food is important, that's my health. So why not pay a little bit extra, to get healthy food.... I mean I don't buy really expensive items or anything like that, it's just more expensive than a cheaper brand, and I can sort of afford it” (Respondent **NZ #7**).

Informant **CN #8** wants to maintain her “healthy living standard” by eating healthy and using green products; and she feels like “the only benefit” of traditional products is “cheap” but actually “not cheap a lot”, as she stated, “I really don’t think buying those eco-friendly green products increased my living expenses much” (Respondent **CN #8**). The similar things said by informant **CN #9** that “because of the illness”, she and her husband want to have “better quality of life” and “reduce the chance of taking more medications”, and thus she said they “have to do it”.

Many informants said they would not like to switch their favoured green products back to the traditional ones. For instance, informant **CN #1** has got used to buying a certain organic food and she would stick to it, as she said, “I don’t care about other things any more”. Respondent **CN #5** said they always buy organic compost which is in higher price than those traditional ones, and they will “not change our principles just because of the price”, because they want to grow organic food and also do not want the soil texture of the land get permanently damaged.

### **(2) Wait for Discounts**

Wait for discounts or on special is another way of handling expensive prices. Some informants would visit different stores to see if the products are on special; and nearly half of these informants said that they would wait for specials or discounts for green products, as one of them explained, “instead of get a random cheaper one in supermarket after I used it up” (Respondent **CN #10**). Also, many participants found that there is no much price difference when those products are on specials, for example as respondent **NZ #10** said,

Sometimes they're not very different to other products, and especially if they're on special, like there's a discount. Sometimes I feel like there're significantly more, but usually the difference is not too much. (Respondent **NZ #10**)

### *(3) Non-switching Behaviours*

Other than waiting for specials and discounts, more than half of these informants from both groups would find their own ways to purchase green products, such as to find alternatives, be selective, make priorities, and use conservatively; and many of them said they would rather not buy certain green products instead of switching back to those traditional ones.

Informants would find alternative green brands. For example, as respondent **NZ #2** said, “not necessarily the exactly same brands, but it would be whichever one is on special that day, that’s a good choice”. Informant **NZ #4** said “sometimes I get the cheaper product that it is eco-friendly, but doesn't work so well. Then I move to a middle range eco-friendly product that does the job, but also isn’t too expensive”.

Many informants would select their preferred product category and items if they could not afford everything green. For example, as respondent **NZ #6** said when she visited local organic stores “so I don't buy fruits or veggies from them, I'll just buy maybe coconut oil and some spices, rice and pasta and maybe flour”. Respondent **NZ #6** said shopping at farmer’s market “frees up a little extra cash” for her to be able to purchase those green cleaning products and things like that.

Many informants would make priorities on certain green products and would not switch back to traditional ones. Respondent **NZ #3** said they would “prioritise it into what gets used the most” because they go through so much of it. For another example of buying free range eggs, he said he had learned the impact from both animal cruelty side and the environmental factors of eggs, and thus he would not switch back to regular eggs rather “have other things for breakfast” (Respondent **NZ #3**).

Also, informants **NZ #6**, **NZ #8** and **CN #8** expressed the same viewpoint that they would not switch back to traditional products just for the price, as **NZ #6** said, “no, not just for the sake of price. I'd rather sacrifice buying a pair boots or new sweater than to live more sustainable”. A similar statement was made by respondent **NZ #8**,

It's possible even you don't have a lot of money, just have to decide what to spend your money on, and like organic food or something, I would rather spend money on really good food than say on a cheap XXX's top, because I think it's worth spending money on good food. Food is what keeps you going, it's not a piece of clothing.

(Respondent **NZ #8**)

The same behaviour applies to Chinese informants. For example of using green dishwashing liquid, respondent **CN #8** said “actually, it is not expensive if you find a way to use it by using it conservatively with water, which is also easy to do the job”. Also, she thinks the green laundry detergent “is a bit expensive” as they go through it often, but she said she would spend on green products rather than fast foods, or “you may have spent it elsewhere” (Respondent **CN #8**).

### 4.10.6 Trusted Place

As previously discussed, for convenience and economic reasons, majority informants usually buy green products in the supermarket; however, for certain food categories and products, many informants would visit trusted places, such as local farmers, organic stores, health stores, and pharmacy. For instance, informants **CN #8** and **CN #9** are well aware of certain food they buy it from. As respondent **CN #8** said she likes soybeans and always buys them at local organic shops, because “I won’t get the soybeans in other stores if I can’t be assured they are organic. There’re too many GMO ones in the market and it’s hard to tell”.

### 4.11 Repetitive Purchasing Reasons

*Repetitive purchasing reasons were found as the one of five critical factors in this research.* Several motivational factors can eventually lead to repetitive purchasing behaviour, such as for environmental concern reason, for informants’ personal benefits reason, and for having a sense of responsibility and obligation. Other than those motivational factors, there are several other reasons that led to repetitive purchasing behaviours, they are ‘meet expectations’, ‘brand trust’, ‘support the business’, and ‘habits’. Among these reasons, requisite condition exists, which means those green products have to meet informants’ expectations at first.

#### 4.11.1 Requisite Condition

Before gets into the repetitive purchasing behaviour, there is one requisite condition of meeting green consumer’s expectations. Most informants perceived environmentally

friendly products as higher price, but still, they paid for those products; and the reasons behind it is not only because those products have provided informants with benefits, but also, they have met or even exceeded informants' expectations with good quality and performance.

Many informants emphasised the importance of product performance for repetitive purchases. For instance, informant **NZ #3** said his partner and him have made their own stuff, but he still likes buying green cleaning products once a month which he thinks work better. The same thing said by informant **NZ #4** that she would try a product at once for the first time, but "it's very important that it does the job that I need it to do".

Informants would much likely go for repetitive purchases once they are happy about the product performance. Respondent **NZ #9** has got solar panels at home and she "would go for it again" because "it worked really well" and "we all loved it". Informant **NZ #8** found a local business that makes organic shampoo, soap and conditioners in solid forms with no packaging. She is happy with the product performance, and it could "last three times as long as getting a big bottle"; she feels "great" about the product and "will pursue this" (Respondent **NZ #8**). Also, informant **NZ #8** is a fan of XXX wool and she described the clothing is "great", "fantastic" and "amazing", because she could wear the top "for a week tramping" and it is "amazing performance wise, they can get wet but they dry super-fast and still would not smell" (Respondent **NZ #8**).

The same reason applies to Chinese informants. Respondent **CN #2** got sudden allergic reaction on her face, and she felt the difference from using green products, as she said, "it made my face feel more comfortable, and since my skin became more sensitive, it is much likely to know if the product suits me or not". Respondent **CN #3** said she noticed the difference of using energy saving light bulbs, which actually have much longer life span than the regular ones, and thus they reduce the waste of resources. Respondent **CN #9** said she "only use" the dishwashing liquid and cleaning products under a particular brand because "it's really good indeed", as she explained,

I would have a reaction of feeling dizzy and uncomfortable once smelt it, like the former cleaning products I've used. I always react to them and couldn't find any substitutes. It was until my son who recommended this brand to me, which I found is

really good indeed that I couldn't smell the chemicals and I have no reactions to it, so my dishwashing liquid is also under the same brand. (Respondent **CN #9**)

On the other hand, if the green product does not have a good performance and quality to match with informants' expectations, it is not likely for them to be purchased again. For instance, informant **NZ #6** said once she tried a green product which does not match with what the product claims, she would be "just not even try anything of theirs anymore" because she felt "deceived". Respondent **NZ #9** in particular emphasised on product performance that "it has to work" and "it's still important what it says it does, it actually does it", as she would not buy the green product "just because it's environmentally friendly and organic and whatever". Respondent **NZ #9** found one cleaning product did not work and "that actually really makes you angry, it pisses me off because I bought this and now I have to go back and buy another one". In terms of the product price, she added, "that wouldn't worry me. I'm happy to pay a little bit more, but I don't like to feel stupid, to pay more, and still not get the benefits what I think I'm paying for (Respondent **NZ #9**).

### 4.11.2 Complementary Reasons

By meeting green consumers' expectations, there are three complementary reasons lead to repetitive purchase behaviours; they are 'brand trust', to 'support the business', and 'habits'.

#### (1) Brand Trust

Based on the condition of meeting green consumers' expectations, many informants said they would keep purchase those green products because of brand trust and company value. For instance, informant **NZ #1** said, "trust in the brand. I paid more for something because I trust the brand better, and the product". In addition, she agreed with the lifestyle and ethics "the individuals who start these companies", and she wants to do "the same sort of lifestyle", to live a life she wants to lead (Respondent **NZ #1**). The same said by respondent **NZ #6** who keeps buying a green product because "I agree with the company's values, and I agree with the products that they provide, and I agree with the way they make me feel". This reason also fits into many Chinese informants' repetitive purchasing behaviours, because as previously mentioned that nearly all of them trust the brands here in New Zealand more than the ones in China.

### *(2) Support the Business*

Based on the condition of meeting green consumers' expectations, many informants have been kept buying certain green products because they want to support the business, as respondent **NZ #4** said, "I'd rather buy local, and I'd rather give my money to someone who's making real eco-friendly products, and to help them keep on going to make eco-friendly products". The same said frequently by respondent **NZ #3**,

I think the most important thing other than you know you're helping the environment, is making sure that money is going to the right people who are trying to help the environment, it's probably my biggest motivator. (Respondent **NZ #3**)

Many Chinese informants have been kept purchasing certain green products for the same reason. Respondent **CN #1** said, "I try to be supportive on organic ones, because I know they need the money to continuously operate their businesses". As mentioned previously that respondent **CN #9** got very satisfied with the performance of green products, and she said, "I've been always trying to buy those environmentally friendly products as long as I could afford them, it is my way of showing supports to those products".

### *(3) Habits*

Other than with a behavioural reason in mind, many informants showed a low awareness for repetitive purchasing behaviour, instead, it has become a habit for them to keep purchasing certain green products and "did not think about it". Some informants have such habits even for years. For instance, respondent **NZ #5** always buy second-hand clothing, furniture and vehicles, she frequently mentioned in her interview that it is a 'habit', as she said,

Just habit, you just do it, a lot you don't think about.... It comes down to attitude and acceptance, and I suppose the knowledge of how our world works as far as our consumption, the consumer and what damage they doing, to the world. That sips into our consciousness and affects our choices. But when you done it for so many years, you don't actually think about it, it's just second nature.... You find ways getting around. As you do it, you get better at it, you don't think about it. (Respondent **NZ #5**)

The same comments said by Chinese informants, respondent **CN #6** said "it has become a habit" and "a conscious action" of buying certain green products "without thinking

much”, and sometimes he would visit other stores seeking for products that are environmentally friendly. Moreover, respondent **CN #10** has similar responses, as he said,

Because I’ve been performing the behaviour, so there is no such a ‘change’...

Because to be honest, it becomes part of your habits in life if you have done it for a long time, so it is not like it’s bothersome or so. (Respondent **CN #10**)

## Chapter 5 Discussion and Conclusion

### 5.1 Introduction

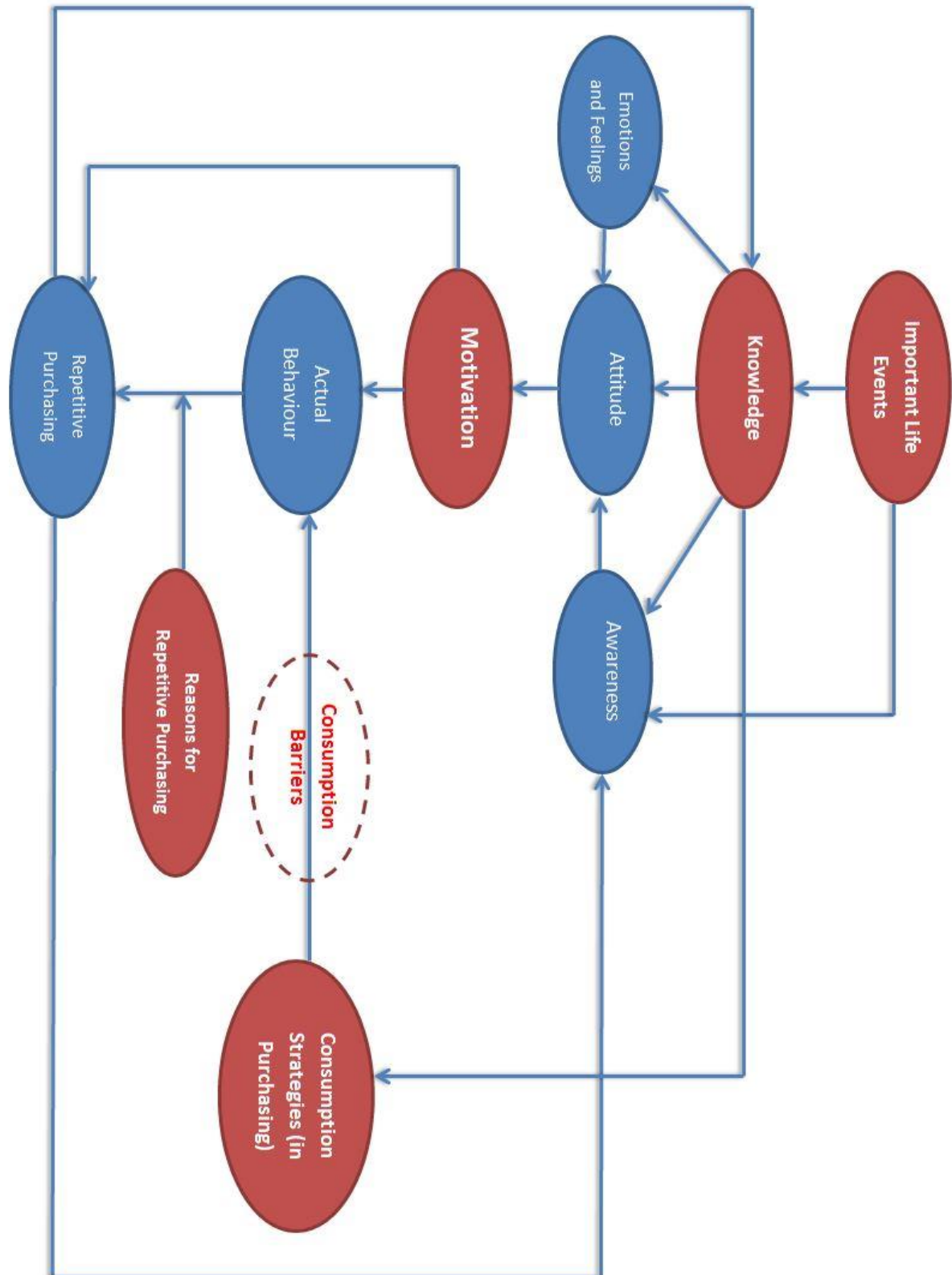
The first aim of this research is to explore green consumers' pro-environmental attitudes and behaviours, including both New Zealand and Chinese consumers. The second aim of this research is to explore any differences between these two groups to gain a deeper understanding of green consumer behaviour in different cultural contexts. The research questions that have guided this research are: 'what is the nature of consumers' pro-environmental attitude and behaviour, and what are the differences among those consumers from New Zealand and China?'. This chapter will start with a discussion of the key findings outlined in the previous chapter, and conclude with research implications, limitations, and areas for future researchers.

### 5.2 Key Findings

#### 5.2.1 Green Consumer Consumption Model

The following *Figure 1* is a model developed from the *Chapter 4 Findings*, and it will be talked about and compared with the TRA and TPB in this chapter.

Figure 1: Green Consumer Consumption Model



### 5.2.2 Nature of Green Consumer Attitude and Behaviour

This research has come up with a Green Consumer Consumption Model (See *Figure 1*) based on the findings in Chapter 4. In this model, there are two major influencers that shape green consumer attitudes, they are 'important life events' and 'knowledge'. Important life events can directly increase consumer awareness, build knowledge, and further lead to attitude change toward pro-environmental activities and green product purchases. The other influencer knowledge can influence consumers' emotions and feelings, and also, it can create consumers' awareness toward environmental issues and consequences. Through these two influencers, consumers in this study hold positive and favourable attitudes toward pro-environmental activities and green consumption. Nevertheless, having positive attitudes is not sufficient; a motive is needed before positive attitudes can be translated into action. There are three motivational factors identified in this study; they are environmental concern, personal benefits, and a sense of environmental obligation and responsibility. These three motivational factors are usually blended together in that each individual informant usually holds more than one motivation in both practicing green activities and purchasing green products. In relation to green purchases, there are two barriers involved, price and trust, and consumers usually have their own method and strategies in dealing with those barriers. In addition, this study found to form repetitive purchasing behaviour among consumers, green products need to meet their expectations first and only then, it is likely for consumers to form 'brand trust', to 'support the business', and to form 'habits' for future repetitive purchases.

To summarise pro-environmental behaviours in this paper, different to most studies that divide people into different segments with clear boundary behaviours, all green consumers in the present study have been involved in both practicing green activities and purchasing green products. There is a wide range of behaviours identified; among those, this research findings agree with previous studies that recycling (Barr & Gilg, 2006; Rettie et al., 2012), the use of reusable shopping bags and energy saving light bulbs (Rettie et al., 2012; Tilikidou & Delistavrou, 2014) are popular, as these behaviours have been regularly mentioned by all informants in the present study. Moreover, as Peattie (2010) pointed out, contextual factors do influence behaviour and types. For example, many informants (both New Zealand and Chinese) in Christchurch have their own gardens to facilitate organic

growing and composting; thus, such behaviours meant those green consumers rarely buy organic food as they usually have their own gardens for organic growing.

This study suggests the TRA and TPB may be useful in understanding green behaviour, and the Green Consumer Consumption Model developed in this paper has some elements that overlap with these two theories. The following will discuss how the model created in this paper has common aspects with the TRA and TPB. However, the Green Consumer Consumption Model does not replicate the TRA and TPB, but has unique aspects that better explain green consumer behaviour.

As discussed before in the TRA and TPB, an attitude consists of two components, the behavioural beliefs and the outcome evaluations; people's attitudes toward the behaviour will be favourable when they believe that adopting the behaviour mainly produces positive outcomes. Also, those theories propose that a multitude of background factors can potentially influence the beliefs people hold (De Leeuw et al., 2015; Fishbein & Ajzen, 2010). Among those background factors, the present study has found the past experience (or 'imported life events' as named in this research) heavily shaped green consumer attitude. Important life events were found as one of the two influencers of the attitude in the current study; they directly increase consumer awareness, build knowledge, and lead to attitude change toward pro-environmental behaviours and green products (as depicted in *Figure 1*).

There are four important life events identified in this paper, they are education, health concerns, overseas travel, and control of one's environment. By receiving the education and acquiring environmental knowledge, by experiencing or suffering health problems, and/or by travelling overseas seeing the difference of a better/worse environment, green consumers in this study believe their pro-environmental activities and green product purchasing behaviour lead to good benefits and outcomes to both themselves and the environment. In addition, only by having control of their environment, green consumers are able to make decisions of practicing green activities or purchasing green products, such as to live by one's self, have control/ authority over household purchases, or have purchase ability to pay for those green products.

Past experience can influence attitude; Cooper and Schindler (2011) found a positive direct experience with a product reinforces a positive attitude, and a negative experience

questions a negative attitude. The present study agrees with the viewpoint and found participating informants already had green buying experience in various green product categories, and such experience strengthen consumer attitude and knowledge over time. Green consumers in the current study have an understanding of the perceived consequences and beliefs about the advantages of consuming green (i.e. green products are good for both of the environment and myself). Their previous life experiences (or important life events) are like examinations of these consequences, as people develop understanding of the possible consequences based on what has happened in the past.

In addition, this paper has looked at not only the perceived consequences of an action, but also how past experiences (or important life events) influenced future behaviour. Many informants from both groups do not have a green lifestyle at the very beginning, but with a conventional way and old habits of living (i.e. not doing recycling nor purchasing green products). Habits are the automatic same behaviour repeated in the same stable situation over and over again, and they are functional in achieving goals (Klößner, 2013). Researchers pointed out that one way of breaking habits and changing behaviour is through contextual change (Verplanken & Wood, 2006), which may “make old habits untenable and lead someone to consider his or her attitudes and values explicitly in developing new ones” (Dahlstrand & Biel, 1997, as cited in Stern, 2000, p. 418). The contextual change can be induced or naturally occurring such as life events (Klößner, 2013), and those already happened ‘important life events’ identified in the present study were events-induced changes that have shaped consumers’ lives and attitudes.

‘Education’ for instance, it increases people’s environmental awareness and shapes their attitudes. Many informants said they have just noticed or had a much deeper understanding about the environmental issues and the consequences of people’s consumption behaviour from educational courses and studies. The influence of education on many informants are significant, the present study agrees with previous researchers that education allows people to better understanding of environmental issues to achieve more environmentally friendly behaviours (Chan & Lau, 2000; Chawla, 1999; Hobson, 2003; Peattie, 2010; Smith et al, 2015; Sun et al., 2015). The ‘health concerns’ for another instance, informants who have suffered health problems are very aware of the products they consume, and they have the habit of purchasing particular green brands. These important

life events have created a new context for behavioural change. Also, things do not just happen, people's lives are shaped by those events that could "turn people's interests and energies in new directions" (Chawla, 1999, p. 17). Those important life events have led green consumers to a green lifestyle and personal interest in pursuing green, and their behaviours have been continued ever since, as mentioned by all participating informants in the interview.

Therefore, important life events play a significant role in consumers' beliefs that green activities and green consumption produce positive outcomes and consequences, and thus impact the evaluations of future outcomes associated with those green behaviours. Those already happened important life events were actually far more of a driver, and much stronger driver than the perceived consequences in the TRA and TPB.

Other than 'important life events', knowledge (as shown in *Figure 1*) is the other influencer of attitude identified in this study. It is a critical influencer for green consumers recognising impacts of consumption and becoming aware of environmental issues; it influences emotions and feelings; it leads to positive attitude change toward pro-environmental behaviours and green products, and thus many informants have changed their behaviours accordingly. Knowledge consists of environmental knowledge and product/brand knowledge. The majority of informants already had some level of knowledge formed through various means; a number of informants have formed some degree of environmentally consciousness through family's influence, and some of them were even influenced by family from a young age. This is in line with subjective norm, one of the components of the TRA and TPB, which suggests that significant others such as family members have an influence on individual's intention to perform the behaviour. In addition, many of the informants started practicing green activities or buying green products from media, or when they pursued educational study, which was discussed in one of the important life events. The knowledge gained from various ways has changed the way consumers used to think and behave, especially in regards to thinking the impacts of their own consumption.

Nevertheless, unlike other researchers who found people practice green activities had a higher educational level (Chekima et al., 2016; Moons & Pelsmacker, 2012; Sun et al.,

2015), not all informants in the present study have a higher education background. Rather, this study agrees with other researchers that informal education from the Internet and media can also lead to positive attitude and behaviour change (Young et al., 2010). By possessing the environmental knowledge, informants from both groups have showed a strong affective attachment to environmental deterioration; such finding is in line with other studies that affective attachment can lead to a strong environmental attitude (Han, Lerner, & Keltner, 2007). In addition, by having the knowledge, green consumers in the current study are likely to take actions; some informants showed what they know about particular companies in terms of environmental contribution, and they have acted consequently by either supporting or refusing to buy those products. Furthermore, the evidence from this study showed that once informants actually got involved in green behaviours for a period of time, the accumulated knowledge from performing those behaviours goes back to enhance their knowledge, and further contributes to their consumption strategies for other green product purchases (as depicted in *Figure 1*).

Important life events and knowledge act as antecedents and impact consumer attitude significantly. There are no differences found in terms of attitude between New Zealand and Chinese consumers; all green consumers in this study have been involved both in practicing green activities and purchasing green products, and they all expressed positive attitudes toward those behaviours. Both groups of green consumers hold a great deal of confidence that practicing green behaviour is the correct thing to do; they will definitely keep doing it and some of them said they are seeking ways to improve and believe they can even do better. Also, both groups of green consumers hold a belief that green products are good for the environment and themselves, and they will keep purchasing as long as they could afford them. Most informants in this study pinpointed that they enjoyed and they will keep contributing their efforts as they can; and they did not perceive those behaviours as stressful, expensive, or time-wasting activities like other researchers have found (Barbarossa & Pastore, 2015).

Furthermore, this study found knowledge leads to emotions and feelings (as depicted in *Figure 1*) by being informed with environmental issues, and these emotions and feelings toward environmental issues acted as an influencer to consumers' attitudes. This study agrees with Kollmuss and Agyeman (2002) that emotional involvement is a learnt

ability, and requires a certain degree of environmental knowledge; a lack of environmental knowledge leads to emotional non-involvement. Moreover, this research concurs with Han et al. (2007) that there is a positive relationship between emotional response and behaviour. The present study found strong emotions and feelings led green consumers to stronger environmental attitudes, and these people are more likely to be involved with the environment and reconsider their way of living. The emotional responses toward environmental issues identified in this study covers worry, anger, frustration, guilt, sadness, depression, and disillusion. In addition, by possessing the environmental knowledge, informants from both groups showed a strong affective attachment to the environmental deterioration, no matter from the sources they have learnt or from personal experience. In particular, Chinese informants in this study who have seen or personally experienced the effect of environmental issues (i.e. air pollution), showed stronger emotions and feelings, which in line with Chan and Lau's (2000) findings.

Based on the TRA and TPB, subjective norm plays an important role in consumers' green practice behaviour in this study; approval from family members and friends is vital to green consumers' choices. As previously discussed in the important life events, several informants' beliefs (from both groups) were influenced by their parents at a young age that they should perform particular green behaviours (i.e. saving energy and water) and their motivation were complied with those significant referents. Also, subjective norm plays an important role in informants' (from both groups) green purchasing behaviour; most of them have listened to and motivated by specific referents' (i.e. friends and family members) recommendations of green products. Especially with Chinese informants, all of them have received and been given recommendations from/ to those specific referents. Breaking this subjective norm is likely to affect consumers' future behaviours. Moreover, instead of just being influenced by significant referents, most informants also want to be behavioural role models by spreading the word about green behaviours. For instance, they have conducted conversations with others, recommended products, or simply showed others what they have done.

Moreover, according to the TPB, people need resources and skills to produce the behaviour. Ajzen (2002b) argued that PBC denotes subjective degree of control over performance of the behaviour itself; it is "overarching, superordinate construct that is

comprised of two lower-level components: self-efficacy and controllability” (p. 680). In the present study, there are external factors (or barriers as named in this study) that green consumers found they could not control, such as the expensive price of some green products, and the green promotion in the market that they could not completely trust. Several informants even do not think they could make a difference if most people are not involved in green behaviours. However, informants believe and they do feel a sense of control on their ability to perform/ execute the courses of action (or strategies as named in this study), not with control over the ultimate outcomes however (Ajzen, 2002b). In other words, all informants in the present study have been involved in green activities and purchases, even some of them know that performing the behaviour by one person will not produce a given outcome or makes a change, but they still do what they can do and buy what they can afford to be environmental friendly.

As discussed above, this research has found that elements of the TRA and TPB are important in attitude towards pro-environmental activities and green purchases, past experiences, subjective norm, and perceived behavioural control. Those elements can all be seen in the current study; although many things are still similar even they are not called the same thing, but they are the same in operationalising the behaviour. However, this model has not replicated either the TRA or the TPB. These theories have been extensively used in a large number of pro-environmental behaviour studies (Ajzen et al., 2011; Bamberg et al., 2003; Bamberg & Möser, 2007; Bang et al., 2000; Chan & Bishop, 2013; Coleman et al., 2011; De Leeuw et al., 2015; Kim et al., 2012; Klöckner, 2013; Polonsky et al., 2012). However, there are concerns and criticisms about the level of completeness when dealing with behaviours involving moral dimension, such as pro-environmental behaviours (Bamberg & Möser, 2007; Chan & Bishop, 2013; Klöckner, 2013). Also, there are concerns and criticisms about its lack of prediction of repeated behaviour (Klöckner, 2013; Stern, 2000). Moral norms are conceived as “feelings of strong moral obligations that people experienced for themselves to engage in pro-social behaviour” (Schwartz, 1977, as cited in Bamberg & Möser, 2007, p. 15). Researchers argued that the TPB ultimately models behaviour on rationality and the cost-benefit-calculations to an action, and therefore, it ignores intrinsic sources of motivation such as moral drivers of pro-environmental behaviours (Chan & Bishop, 2013; Thøgersen, 1996, as cited in Klöckner, 2013).

On the other hand, another key finding in the current study, which shows the important role of motivation, is very similar to the behavioural intentions in the TRA and TPB. Instead of using behavioural intentions, this study has looked into motivation, because it was found to be much stronger driver of future behaviour based on the green consumers who have participated in the interviews, rather than behavioural intentions.

Though green consumers hold a positive attitude toward pro-environmental activities and green products, however, as Quester et al. (2007) point out, a favourable attitude requires a need or motive before it can be translated into action. By exploring green consumer behaviour, this research found how such motivation (refer to *Figure 1*) came into existence. There are three motivational factors identified in this study; and they are usually blended together in that each individual informant usually holds more than one motivation of doing so.

One of the motivational factors is environmental concern. All informants in this study expressed their concerns toward environmental issues, and they have been taken pro-environmental activities and actions as regular daily routines (i.e. recycle, reduce, reuse, conservations). Watkins et al. (2015) found many New Zealand consumers are motivated largely by their environmental concerns. Contributing to their findings, the present study found all participating New Zealand and Chinese green consumers expressed their environmental concerns as one of the motivations behind their green behaviours, even though they have different backgrounds and demographics. With environmental concerns, consumers usually seek out possible ways to contribute to help preserve the environment, which is in line with the findings of other studies (Davari & Strutton, 2014; Thøgersen, 2011).

The second motivational factor is personal benefits, such as 'health benefit', 'save money', and 'psychological benefits', and they significantly influenced green behaviours. In relation to green product purchasing behaviour, consumers shop not only with environmental concern and a sense of obligation and responsibility; but also, the current study agrees with other researchers that consumers evaluate benefits and costs as well when involved in green purchases (Eckhardt et al., 2010). No matter of different age range,

all participating informants in this paper are aware of their health, and thus they always pay attention to the products they use and consume.

Also, most informants in this study do not only pursue a healthy lifestyle, but also a psychological wellbeing. The present study found psychological benefits significantly motivated consumers from both groups when practicing green activities and purchasing green products. For instance, the benefits include ease guilt and feel better, to be ethical, to make a difference, and to be an example/ role model to spread the behaviour. These intrinsic pleasure motivate consumers, and also, the present study agrees with other research findings that they in turn increase people's life satisfaction by demonstrating those behaviours (Leonidou et al., 2010). This is why many informants said they feel happy with what they are currently doing; they expressed that they could do even better; and they would continuously practice green activities and buy green products as long as they could afford them.

The third motivational factor found in this study in terms of performing pro-environmental behaviours is a sense of environmental obligation and responsibility. As previously mentioned, this study agrees with other researchers that moral motivation is not adequately represented in the TRA and TPB; both self-interested and selfless motives should be taken into account in pro-environmental behaviours (Bamberg & Möser, 2007; Chan & Bishop, 2013; Klöckner, 2013). Johnstone and Tan (2015) found one of the reasons, denial of responsibility, is that many respondents did not participate in green behaviours. Different to their findings, many participating informants in the current study said they are involved in pro-environmental behaviours is because of their responsibility. All informants believed that they are doing something morally right in terms of practicing green behaviours, and many of them said it is ethical or morally right to purchase those green products. This study agrees with other researchers that this is primarily based on having an environmental attitude at first (Chekima et al., 2016), and thus, individuals are more likely to feel morally obligated to conserve the environment and prevent further deterioration.

Also, the present study found green consumers do expect governments and corporations to take a role in environmental responsibility. However, different to other research findings (Chan, 2001, 1999; Eckhardt et al., 2010), none of green informants in the

present study solely rely on the shoulder of government protection and absolved from their own individual responsibility. In addition, previous studies pointed out that a sense of helplessness or the belief of one's action cannot make a difference lead to no-involvement in green behaviours (Bray et al., 2011; Johnstone & Tan, 2015). Different to such findings, though not all informants hold a belief that they can make a difference, as they are just 'one person'; however, all informants in the present study have been involved in practicing green activities and buying green products regularly. Several participants said there are certain products they could not purchase due to economic limitations, but those informants hold a positive attitude and focus on what they can do to make a difference. Green consumers in this study still behave in a sustainable way because like they said, they have the responsibility to 'do his/ her bit' as consumers and citizens, and such motivation was found playing an important role in defining environmentally conscious consumers in this study.

As previously mentioned, there are external factors and circumstances consumers could not control and impede their green behaviours, which are identified as barriers (refer to *Figure 1*) in the present study. Most informants expressed the view that they do not have any barriers in relation to green purchase behaviour; several informants said the major barriers are 'price' and 'trust'. This research finding agrees with many other studies that price could act as one barrier in purchasing green products (Barbarossa & Pastore, 2015; Bray et al., 2011), but not for all green products in the present study.

Trust about the greenness of a product is identified as another consumption barrier; and thus, such scepticism does not only exist in general consumers as other researchers have found (D'Souza et al., 2006), but also, it exists in some green consumers as well in this research. Moreover, because of the wide media coverage, several New Zealand informants said they would not trust the green products a hundred percent, and especially labels that are verified by a financially dependent company or product manufacturers themselves, which is in line with other research findings (Pedersen & Neergaard, 2006). Many green consumers from both groups expressed the view that 'greenwashers' can make it hard for them to find out genuine green products, which is not good for the whole industry either, as there are companies strive to promote less environmental damage. Therefore, informants, and especially New Zealand green consumers who seemed more sophisticated, expected independent authorised institutions to regulate the industry to help them make more

informed purchase decisions; like other researchers have suggested, a higher quality of specific information and standardised labelling systems are needed to help people make sustainable choices (Watkins et al., 2015).

As previously mentioned, green consumers do feel a control of their actions on what they can do, which are identified as consumption strategies (refer to *Figure 1*) in the present study. Though there are consumption barriers identified above, this study agrees with Fuentes (2014) that green consumers do manage in buying and consuming green products, and they have their own shopping strategies and pragmatic techniques to manage green complexities and barriers. Green consumers in the current study usually conduct their own research through different sources such as online for trustable products and companies; they seek information from family, friends and other users, and perceive word-of-mouth to be very credible. Also, this research agrees with Fuentes (2014) that shopping is a way of acquiring knowledge; the evidence in the present study showed that most informants knew and learnt their green products when they shopped in-store, very few of them have paid attention to advertisings. This paper is in line with previous studies that point-of-sales (both labels and packaging) for communicating the specific benefits and characteristics are critical in green consumption decision-making (D'Souza et al., 2006; Ritter et al., 2014; Thøgersen et al., 2010); also, the packaging can represent "a specific and visible element of environmental concern for the consumer" (D'Souza et al., 2006, p. 148). However, this paper is also in line with other studies have suggested (UNIDO, 2011) that green consumers still expected easier ways to choose genuine green products, as trusted eco-labelling and product certification reduces misleading, and further encourages sustainable consumption with confidence.

Moreover, in terms of green product purchases, purchasing ability is required to translate favourable beliefs and feelings into ownership (Quester et al., 2007). The current study found green consumers' purchasing ability varies, and not all informants were affluent enough to purchase all kinds of green products. Other researchers found general consumers choose not to purchase green products because of the perceived higher price (D'Souza et al., 2006). Because green consumers have the environmental concern, attitude, and motivation; they still take actions and usually try to find alternative ways in consuming green products, such as wait for discounts, make priorities and trade-offs between product

categories, find alternative brands, be selective, and use conservatively. For instance, green consumers in this study expressed the view that once some green products are discounted, there are actually no price differences compared to the conventional alternatives. Several informants even expressed the view that they would rather not buy any if they could not afford certain green products for that week. In addition, most informants choose to keep using green products, instead to switching back to conventional products.

Furthermore, other than expensive prices, D'Souza et al. (2006) pointed out that in their study, consumers' perceptions of green products as inferior in quality is another reason that cause their reluctance to switch to green brands. In relation to green brands in particular, informants in the current research have showed polarised views, and this is because of the different levels of purchase ability. Some informants said that they will definitely keep with their current green brands, and will always stick to them as long as they maintain the good quality. Some informants who do not have the purchasing ability for certain green products would choose cheaper brands, as long as they are environmentally friendly. However, all informants from both groups perceive cheaper green brands as lower quality and performance, and perceive higher-priced brands as better quality and performance. Such perceptions are in line with what Davari and Strutton (2014) have found that perceived higher prices of green product brands are associated with overall brand excellence.

As previously mentioned, concerns are not only expressed on the level of completeness in the TRA and TPB, but also, there are concerns and criticisms about their lack of prediction of repeated behaviour (Klöckner, 2013; Stern, 2000). Contributes to the literature, the present study found those three motivational factors (i.e. environmental concern, personal benefits, and a sense of environmental responsibility and obligation) not just drive consumers to perform green purchasing behaviour, but also, they can drive for future repetitive purchases (as depicted in *Figure 1*). However, there is a requisite condition (as depicted in *Figure 1*), which means those green products have to meet consumer expectations (i.e. performance). Though green consumers have the environmental concern and motivation of purchasing green products, they do not only expect the 'greenness', but also as they mentioned in the interview, all green consumers expect the product to have a standard performance. In other words, green products need to provide primary core

benefits to meet consumer needs, as suggested by other researchers (D'Souza et al., 2006; Ottman et al., 2006; Watkins et al., 2015). Only then, consumers are satisfied with the green products with a feeling of doing the right thing without harming the environment; and thus, a mutually beneficial relationship between sustainability and a quality of life can co-exist in a harmonious manner (Bodet, 2008; Chen, 2010; Leonidou et al., 2010).

In addition, once the requisite condition is satisfied, this study found consumers are more likely to use their economic vote for repetitive purchases; such economic vote represents a way of valuing the environment by 'supporting the business' and a message of 'brand trust' to business who contributes good efforts to the environment. As other researchers pointed out, this is a way consumers showing to their trusted brands that they value the environment and the green brand effort, they consider such attribute while purchasing green products (Cleveland et al., 2012). Also, as nearly all participating informants have been purchasing green products regularly, this study agrees with other research findings that consumer's self-experience and experience of others have positively affected their attitudes toward buying green (Cooper & Schindler, 2011; Thøgersen & Zhou, 2012), have facilitated the green purchase decisions (Abdul-Muhmin, 2007; Kumar & Ghodeswar, 2015), and have given people confidence in purchasing other green products (Khare, 2015).

Moreover, this study found important life events not only impact on consumer attitude, but also break their old habits (i.e. only buying conventional products) and provide chances to form new ones. Many informants said it is a habit for them performing in an environmental way, and such habits have continuously built into their daily life habits, such as doing recycling and conservation, buying energy saving/ second hand products. Habits are the automatic performance of behavioural patterns triggered by context cues (Klößner, 2013). As previously discussed, those important life events have acted as events-induced changes and a foundation for continuities that could turn an individual's interest and energy in new directions. As evidence, this study found all informants already got involved in practicing various activities and purchasing different green product regularly.

In relation to repetitive purchases, the green purchase behaviour (i.e. buying second hand or current green brands) on a regular basis eventually becomes a habit, and in that

sense, little cognitive effort is required for continued execution of the behaviour.

Informants in the current study who have habitual actions on a routine basis or a routine sequence of behaviour do not necessarily start an initial search process like the first time; they do not require much deliberation; they do not usually consider the advantages and disadvantages of doing recycling or purchasing a certain green brand and then formulate a conscious intention to do so; they do not make such decisions anew every day, but as other researchers pointed out— they proceed the behaviour with little conscious monitoring (Bamberg et al., 2003). Therefore, the repetitive purchase behaviour further lowers green consumer awareness (as depicted in *Figure 1*) that they do not think it much anymore.

Moreover, this study agrees with Bamberg et al. (2003) that only under certain conditions, frequency of past behaviour will be a powerful predictor of later behaviour; as long as the configuration of controlling factors remains stable over time, there is no reason for the behaviour to change. For instance, if those green consumers lost their jobs and cannot afford green purchases any more, or they are no longer satisfied with their current green products, or they have no longer feel of relative security of using those products, their current habits of purchasing certain green brands may change.

Therefore, what adds to the literature and makes the model different is that it has found elements that are not presented in the TRA and TPB, such as knowledge (another influencer of attitude), motivation, consumption strategies, and repetitive purchases. In addition, the Green Consumer Consumption Model has been enhanced by looking at green consumer behaviour in a different cultural context, where it has not been applied to the comparison between New Zealand and Chinese green consumers, and this is discussed in the following section.

### 5.2.3 Cultural Comparison

As one of the research purposes, this study explores whether cultural differences exist and what are the differences among those consumers from New Zealand and China. The following differences were found in the current study. Firstly, there is a difference in motivational factors. Personal and family health benefit, as one of the motivational factor of purchasing green, is frequently mentioned by both New Zealand and Chinese informants. In particular, health issue is much bigger driver and is more concerned by Chinese informants. Such finding agrees with what Harris (2006) has reviewed that the environment is primarily

about sanitation and health for many Chinese informants, it exists for the benefit of people. In addition, as many environmental problems have occurred and have affected them directly (i.e. air quality), Chinese informants do show greater concern in terms of environmental deterioration and view themselves as the victims living in polluted environment; and thus, they have showed stronger needs and drives for a better living standard and quality of life. Moreover, different to what Harris (2006) has reviewed, this study found Chinese green consumers expect powerful others such as government and enterprises to take actions, but also, they are not absolved from their own individual responsibility and believe that if all people work together this can make a difference.

Secondly, there is a difference in terms of green products perception. There are studies (Bray et al., 2011; D'Souza et al., 2006) found consumers have negative perceptions according to their past green purchase experience; they viewed green products as higher price with lower quality. Such perception and concerns tend to exist more among New Zealand respondents, as most Chinese informants expressed positive feedback toward those green products they use. In addition, as this study was taken place in Christchurch, Chinese informants showed a favourable attitude towards New Zealand-related products and brands, and they tend to put more trust in those products than New Zealand consumers. Nearly all Chinese informants said they trust certain New Zealand product brands and labels more than the ones in China, as they believe the codes and regulations are more stringent, and this is usually in food/ wellbeing/ commodities/ cosmetics (skincare) product categories. Furthermore, Chinese informants prefer products that have been advertised on television, and they perceive these products as more trustable and better quality. On the other hand, many New Zealand informants hold different views that they did not like green companies to spend much on advertising their products, but rather to spend the money on research and development for better product quality and performance.

Thirdly, there is a difference in one of the consumption strategies. As discussed earlier about subjective norm and significant others in this chapter, many informants from both groups are influenced by their parents and friends in terms of participating in green activities and green purchases. Subjective norm has a bigger influence on Chinese informants. In particular, word of mouth was found playing a more important role among Chinese informants than New Zealand informants in terms of considering and purchasing

green products. Most Chinese informants like to share information and things, and they are motivated by specific referents' (i.e. friends and family members) recommendations of green products. In addition, they not only like to listen to those referents, but also they like to recommend green products/ brands to others as well. Based on such findings, group conformance seems influence people's consumption decisions.

Drawing on Hofstede's cultural framework, this could be explained by individualism/collectivism culture and social influence. Individualism/collectivism describes "the relationship between the individual and the collectivity which prevails in a given society"; it reflects the way people live together (Hofstede, 1984, p. 148). According to The Hofstede Centre (2016), the individualism index of New Zealand is 79, which makes it an Individualist culture, and China is 20, which is a highly collectivist culture. This study agrees with other researchers that people in collectivist culture and societies are more likely to adhere to social and group norms and values (Khare, 2015), and less driven by their own attitudes and preferences in the determination of their intentions (Hassan et al., 2016). Moreover, the findings are in line with other studies that people with collectivistic culture are more susceptible to social influence in buying situations than those from an individualistic culture, the former are more easily influenced by others than people with individualistic culture who seek to act in own self-interest (Eze & Ndubisi, 2013).

However, different to Ottman et al. (2006), who have identified the motivation of symbolism and status in relation to green purchase, the present study did not find such motivation. According to The Hofstede Centre (2016), the power distance index of New Zealand is 22, and China is 80, and in high power distance cultures, personal appearance is important for upholding 'face' and respected social status (Mooij, 2014). However, there is no evidence showed that participating Chinese green consumers pursue high status of purchasing green in the present study. This could be explained that green brands and products are not perceived as social status needs nor related with face by those informants, but rather found and perceived more as a healthy way of using and consuming, for better quality of life and health reasons in this research.

Fourthly, there is a difference in one of the consumption strategies. Gan et al. (2008) found unfamiliar brands negatively affect the probability of consumer purchase of green

products; people are less likely to purchase green products if they are not familiar with the brand. This factor was found playing an important role in the Chinese sample. According to The Hofstede Centre (2016), the uncertainty avoidance index of New Zealand is an intermediate of 49, which does not show a preference; China has a low score of 30, which means the Chinese are comfortable with ambiguity. This cannot be explained by Hofstede's cultural dimensions theory. Many Chinese informants said that they perceive higher priced items as better quality, or they prefer established well-known brands over those unknown branded products with lower prices. This could be explained, as many Chinese informants mentioned in their interviews that there are numerous brands with varied quality standards in China, and they tend to choose higher-priced well-known brands because 'you get what you pay for'. Therefore, Chinese consumers tend to choose bigger and well-known brands to reduce their scepticism and distrust toward relatively new and unknown brands, or they would buy products based on the experience of others.

Finally, as both New Zealand and Chinese green consumers were interviewed in Christchurch, of the physical products being the same, there is an advantage of comparing and discovering consumer attitude and behaviour between the two groups. However, this is also a disadvantage, as place helps define culture (Mooij, 2014). Harris (2006) pointed out that consumption and materialism in China's urban areas are manifest, and the lifestyle of New Zealand people were found as enjoy living simply (Watkins et al., 2015). As Quester et al. (2007) pointed out, "cultures are not static and they typically evolve and change slowly over time" (p. 527). Also, as rapid technological advances such as the Internet and media (Quester et al., 2007), globalisation (Hopper, 2007), and overseas travelling, Chinese informants in this study exposure to the values of another culture— New Zealand culture. This is may be why there are no significant differences found between the two groups, as many of Chinese informants in this study have been in New Zealand for a very long time, ranges from two and a half years to fifteen years. Thus, they could become very New Zealand in that attitude and behaviour.

### 5.3 Conclusion

The purpose of the present study is two-fold. The first aim of this research is to explore green consumers' pro-environmental attitudes and behaviours, including both New Zealand and Chinese consumers. The second aim of this research is to explore any

differences between these two groups to gain a deeper understanding of green consumer behaviour in different cultural contexts. A total of twenty green consumers are interviewed in Christchurch, based on their actual behaviours in both practicing green activities and purchasing green products. A Green Consumer Consumption Model has been developed, which shows all the factors incorporated with identified relationships between them, and the model has its advantages of helpful in seeing the whole process of green behaviour based on empirical data. In addition, this study suggests the TRA and TPB may be useful in understanding green behaviour, and the Green Consumer Consumption Model developed in the present study has some elements that overlap with these two theories. The attitude, subjective norm, and perceived behavioural control in the TPB can all be seen in the present study; in particular, subjective norm is found playing a bigger role in the Chinese sample. However, the Green Consumer Consumption Model does not replicate the TRA and TPB, but has unique aspects that better explains green consumer behaviour.

The findings of this study can be summarised as follows. First, there are two influencers that affect consumer pro-environmental attitudes; they are important life events and knowledge. Important life events are like examinations of the perceived consequences about the advantages of consuming green, and consumers in this study hold positive attitudes toward pro-environmental behaviours based on their understanding of the possible consequences that has happened in the past. Also, important life events are events-induced changes that lead to contextual change, and they influence consumers' future behaviours of developing new sustainable habits. Important life events increase green consumer awareness toward pro-environmental activities and green product purchases; and also, they help to build or enhance consumer knowledge. The second influencer is knowledge, which consists environmental and product knowledge. It affects consumers' emotions and feelings, increases awareness, and further leads to attitude change toward pro-environmental activities and green product purchases.

Secondly, this study has looked at motivations rather than the behavioural intentions in the TRA and TPB, as the former was found to be much stronger driver of future behaviour in this study, rather than behavioural intentions. There are three motivational factors identified; they are environmental concern, personal benefits, and environmental responsibility and obligation. The last motivational factor addresses the argument of the

completeness of the TRA and TPB in relation to pro-environmental behaviours. It is an important moral driver of green behaviour, and it plays an important role in defining environmentally conscious consumers in this study. Green consumers hold a great deal of confidence that practicing green activities and purchasing green products is the correct thing to do; even though not all informants believe they could make a difference, they are still involved in green behaviours and do not deny for personal responsibility and obligation.

Moreover, two consumption barriers were identified; they are price barrier and trust barrier. Green consumers have their own shopping strategies and pragmatic techniques to manage green purchases. They do information search, check product labels and packaging, and buy from trusted brands and place. In addition, most of them would not switch back to conventional products, instead, they would rather wait for discounts, find alternative, be selective, make priorities, and use conservatively when handling expensive product prices. For future repetitive purchase reasons, the product itself has to meet consumer expectations. Once consumers are satisfied with the product, they are more likely to use their economic vote for repetitive purchases; as a way of valuing the environment by 'supporting the business', a message of 'brand trust' to business who contribute good efforts to the environment, or simply just for habits. Habits lower consumer awareness in their future behaviour that they would not go through as many processes as the first time. Furthermore, once informants actually got involved in practicing green or buying green for a period of time (or refer as repetitive purchase behaviour), the accumulated knowledge from performing those behaviours goes back to enhance their knowledge.

Lastly, there are four cultural differences identified. There is a difference in motivational factors, and health issue is much more concerned by Chinese informants. There is a difference in terms of green products perception; Chinese informants showed more favourable attitude towards New Zealand-related products and brands; and they tend to trust those products more than New Zealand consumers. There is a difference in term of consumption strategies; word of mouth plays a more important role among Chinese informants, and also, they like to share information and things with others. There is a difference in consumption strategies; Chinese informants are less likely to purchase green products if they are not familiar with the brand, unless the products are recommended by referents.

## 5.4 Research Implications

### 5.4.1 Theoretical Implications

The findings of this research contribute to consumer behaviour and green marketing literature. As discussed before, there have been a large number of studies focused on attitudes, purchase intention, and willingness to pay on single product category by using quantitative studies. The present research adds to literature on the overlooked green consumer segment, and helps understand their green behaviours further. This study brings together the insights of green consumer attitudes and actual behaviours in both practicing green activities and purchasing green products. Also, this research has made important contributions to the understanding of pro-environmental behaviours by using the TRA and TPB frameworks in cross-country studies. This research has added insights on how green consumers from both New Zealand and China formed a positive attitude in green activities and green purchases; how their motivation came into existence; what are their barriers and strategies involved in dealing with green consumption in life; and how their green behaviours merged into their daily routines and habits. It is one of the few studies that have explored green consumer behaviour in a holistic view in a single model containing attitude, motivation, and purchase behaviour. The conceptual framework contributes to advance knowledge in both the green consumer area and pro-environmental behaviour area at large.

### 5.4.2 Managerial Implications

This study not only contributes to the literature, but also provides insights on managerial implications. As Eze and Ndubisi (2013) pointed out, there is an opportunity of growth in the green marketing domain and it would be a competitive advantage of green firms being environmentally friendly and social responsible. As discussed before of the importance of green consumers, they are the ones that are more likely to respond to green marketing activities, and thus, understanding green consumers is critical. Without an accurate understanding of this valuable segment, there could be possible challenges in launching green products and marketing activities. This research could provide practical insights for manufacturers, green marketers, and policymakers in both New Zealand and China, and those insights could be used as valuable feedback to help them develop effective marketing strategies and policies and bring value-return in the long-term view.

This study has explored the motivation behind green consumer behaviour, both in practicing green activities and green purchases. Initially, different to green activities, consumers do make trade-offs between perceived advantages and disadvantages when they come to green purchases, and product performance needs to be ensured for future repetitive purchases. Also, this study agrees with what Ottman et al. (2006) have suggested, marketers should avoid green marketing myopia that the green products must meet consumers' needs and beyond what is only good for the environment, but also the benefits they could bring. Green marketers and policymakers should develop strategies by understanding the motivation of green consumers for effective communication; such as by promoting environmental and personal benefits, and society wellbeing of purchasing green products.

In addition, the research findings showed that many green consumers said they would not know or learn the negative environmental impacts if they do not have the knowledge. This research found that knowledge could lead to concrete attitudes and actions; however, people need the knowledge and relevant information about what to do and how to do in an environmentally friendly way. Government and institutions could provide information and educational programs to the public to encourage for responsible behaviours. Green manufacturers and companies could educate potential green consumers, by putting clearly and positive environmental information and consequences that the green alternatives could make or bring. Educational and informational content could be provided in green product promotion activities to encourage knowledge contribution and green buying behaviour. Furthermore, the findings noted that in-store learning plays an important role; additional detailed and easy-to-understand information could be provided in-store or on the company website to help proactive green consumers to learn more, and understand products and consequences better. Based on the means that most green consumers approached their green products, green manufacturers and companies could cooperate with local specialised green organic stores and local supermarkets to introduce their green product range, which would be very helpful in gaining product awareness and trust. Moreover, temporary and regular discounted prices would also be helpful in maintaining current green consumer loyalty and reaching new potential green consumers.

Major consumption barriers such as price and trust were identified in this study. The findings noted that not only general consumers, but also green consumers have concerns as well in trusting green products in the market. As Davari and Strutton (2014) suggested, to create favourable attitude toward green brands, green products should deliver their green promises as they claimed. The evidence in the present study found over-exaggerated claims would make consumers feel the brand is not being honest or genuine, and such claims should be avoided. Authorised certified labels from reliable third parties are very necessary for demonstrating their efforts and authenticity, which also adds consumer confidence in purchases. In addition, not only the claims and certified labels, green manufacturers and companies should also consider their packaging to be recyclable, or should be less harm to the environment to add consumer confidence. Also, this study offers insights for policymakers who expect more green and sustainable behaviours. Policymakers should take necessary actions and procedures to ensure the green products sold on the market are green as what they claimed; it could reduce consumer concern and scepticism, help consumers make easier decisions, and also encourage business that are really making efforts contributing to the environment.

Moreover, as all participating consumers in this study already hold a positive attitude toward green product purchases, they have strong beliefs of controlling their own actions toward those behaviours, and further emphasising on positive outcomes from those behaviours would be less likely to be effect. In this situation, it is really important for green marketers and manufacturers to focus on their green products to meet green consumer expectations. In addition, in terms of marketing practices, green marketers should be aware that word-of-mouth and social influence in collectivistic cultures in terms of purchasing is stronger than the ones in individualistic cultures. Thus, by emphasising such influences, it is more likely to make a difference in marketing practices.

### 5.5 Research Limitations

There are several limitations in this study. As this is a qualitative research, it could be too subjective and difficult to generalise the findings to the wider population of green consumers. Snowball sampling was used to reach further green consumers; though it was a good way for homogeneity of the sample, the sample might still not be diverse enough. As this study is on cross-cultural research, problems associated with translating interview data

can be caused by language and grammatical structure differences. Also, the use of words, idioms or proverbs, and cultural contexts insensitivity might exist though translation.

The data was analysed by one individual, the researcher could profoundly influence personal interpretation, and the significance and importance of findings could be based too much on the researcher's insights. Though the computer software *NVivo 10* was used for the coding process, data framing and analysis was based on the researcher's creativity, and data interpretation was made through the researcher's own viewpoint. Therefore, there could be bias made during these processes.

Within the time constraints given and convenience reason, the sample size is twenty. This is a small number of individuals and little attempt in a certain locality of Christchurch, and therefore, the findings cannot be generalised to a larger population. In this study, interviewed green consumers at Christchurch cannot be treated as representative of whole green consumers of New Zealand and China, and the findings cannot be representative for the whole green consumers of New Zealand nor of China.

Moreover, this research was conducted to understand green consumers' attitudes and behaviours under particular context and timeframe. As such, there is also a limitation to replicate this study, and the findings cannot be used as predictions in a similar setting or environment.

## 5.6 Future Research

This research is mainly focused on green consumers' attitudes and actual behaviours, both in terms of practicing green activities and purchasing green products. It does not explore their overall behaviour as a whole. For example, McDonald et al. (2012) explored the 'grey' areas that green consumers did not take action or sacrificed on. It would be interesting for future studies to explore how green consumers evaluate and choose on their preferred areas they work on. Thus, post-purchase consumption such as the 'use phase', the maintenance, and the disposal of the product, were not examined in this study. Future studies could investigate and explore more in-depth in this phase to achieve a holistic view of green consumer behaviour.

As Peattie (2010) pointed out, contextual factors do influence behaviour and types, and thus, whether these informants' behaviours will change again or not once they went

back to China is unknown. Some green consumers said they started practicing or buying green after they have come to New Zealand; as other researchers have pointed out that many pro-environmental behaviours can only take place if the necessary infrastructure is provided (Abdul-Muhmin, 2007; Kollmuss & Agyeman, 2002). For instance, all participating informants have been involved in waste sorting; this may be because not only they have the environmental concern, but also in relation to the local waste management program and infrastructure provided and required in Christchurch. In particular, waste sorting and recycling are perceived as normal activities; Christchurch has collection day for the program and has provided three-colour waste sorting wheelie bins for each house to practice. Many Chinese informants expressed the view that they were not able to do so due to different systems and local infrastructure in their hometown, and some of them felt it is a waste of effort as all the final waste were collected into the same truck in their local community.

Therefore, it is important for people to have the environmental attitude and concern, but also, it is important to have the infrastructure and system for people to be involved in practicing green behaviours. Moreover, as Harris (2006) pointed out that in China's urban areas, "rampant consumption and conspicuous materialism are manifest" (p. 9), and Kollmuss and Agyeman (2002) argued, "if the dominant culture propagates a lifestyle that is unsustainable, pro-environmental behaviour is less likely to occur" (p. 242). Future researches could explore green consumers who have some New Zealand culture and have gone back to China, to see whether they will be influenced again by the local values and culture, and how would they deal with such conflicts.

Moreover, this research does not explore Chinese informants who currently live in China. The participating Chinese informants in this study have been in New Zealand for at least two year and a half, and most of them could have lived into the culture to New Zealand lifestyle. As Harris, (2006) pointed out, China is a large and diverse country, people in different parts of China have different perceptions and behaviours, and it would be very useful and practical for future studies to conduct research on Chinese green consumers who currently live in China. In addition, purchasing ability seems play a much important role when conducting green buying behaviours in China; as Thøgersen and Zhou (2012) found in their observations that organic vegetables in Guangzhou were priced about five times

compare to their conventional counterparts, which makes the product irrelevant to most Chinese consumers.

## REFERENCES

- Abdul-Muhmin, A. G. (2007). Explaining consumers' willingness to be environmentally friendly. *International Journal of Consumer Studies*, 31, 237-247.
- Ajzen, I. (2002a). Residual effects of past on later behaviour: Habituation and reasoned action perspectives. *Personality and Social Psychology Review*, 6(2), 107-122.
- Ajzen, I. (2002b). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32(4), 665-683.
- Ajzen, I., Joyce, N., Sheikh, S., & Cote, N. G. (2011). Knowledge and the prediction of behaviour: The role of information accuracy in the theory of planned behaviour. *Basic and Applied Social Psychology*, 33(2), 101-117.
- Albayrak, T., Aksoy, S., & Caber, M. (2013). The effect of environmental concern and scepticism on green purchase behaviour. *Marketing Intelligence & Planning*, 31(1), 27-39.
- Bang, H. K., Ellinger, A. E., Hadjimarcou, J., & Traichal, P. A. (2000). Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory. *Psychology & Marketing*, 17(6), 449-468.
- Baldassare, M., & Katz, C. (1992). The personal threat of environmental problems as predictor of environmental practices. *Environment and Behaviour*, 24(5), 602-616.
- Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of travel mode in the theory of planned behaviour: The role of past behaviour, habit, and reasoned action. *Basic and Applied Social Psychology*, 25(3), 175-187.
- Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, 27(1), 14-25.
- Barbarossa, C., & Pastore, A. (2015). Why environmentally conscious consumers do not purchase green products: A cognitive mapping approach. *Qualitative Market Research*, 18(2), 188-209.

- Barr, S., & Gilg, A. (2006). Sustainable lifestyles: Framing environmental action in and around the home. *Geoforum*, 37(6), 906-920.
- Belk, R. W., Fischer, E., & Kozinets, R. V. (2013). *Qualitative consumer & marketing research*. Thousand Oaks, CA: SAGE.
- Bernard, H. R., & Ryan, G. W. (2010). *Analysing qualitative data: Systematic approaches*. Thousand Oaks, CA: SAGE.
- Bigsby, H., & Ozanne, L. K. (2002). The purchase decision: Consumers and environmentally certified wood products. *Forest Products Journal*, 52(7/8), 100-105.
- Blake, J. (1999). Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experience. *Local Environment*, 4(3), 257-278.
- Bodet, G. (2008). Customer satisfaction and loyalty in service: Two concepts, four constructs, several relationships. *Journal of Retailing and Customer Services*, 15, 156-162.
- Bodur, M., & Sarigollu, E. (2005). Environmental sensitivity in a developing country: Consumer classification and implications. *Environment and Behaviour*, 37(4), 487-510.
- Bond, S. (2011). Barriers and drivers to green buildings in Australia and New Zealand. *Journal of Property Investment & Finance*, 29(4/5), 494-509.
- Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98(4), 597-608.
- Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford, United Kingdom: Oxford University Press.
- Carrigan, M., Szmigin, I., & Wright, J. (2004). Shopping for a better world? An interpretive study of the potential for ethical consumption within the older market. *Journal of Consumer Marketing*, 21(6), 401-417.
- Carrus, G., Passafaro, P., & Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviours: The case of recycling and use of public transportation. *Journal of Environmental Psychology*, 28, 51-62.

- Chan, R. Y. K. (1999). Environmental attitudes and behaviour of consumers in china: Survey findings and implications. *Journal of International Consumer Marketing*, 11(4), 25-52.
- Chan, R. Y. K. (2001). Determinants of Chinese consumers' green purchase behaviour. *Psychology and Marketing*, 18(4), 389-413.
- Chan, R. Y. K. (2004). Consumer responses to environmental advertising in China. *Marketing Intelligence & Planning*, 22(4), 427-437.
- Chan, L., & Bishop, B. (2013). A moral basis for recycling: Extending the theory of planned behaviour. *Journal of Environmental Psychology*, 36, 96-102.
- Chan, R. Y. K., & Lau, L. B. Y. (2000). Antecedents of green purchases: A survey in China. *Journal of Consumer Marketing*, 17(4), 338-357.
- Chawla, L. (1998). Significant life experiences revisited: A review of research on sources of environmental sensitivity. *The Journal of Environmental Education*, 29(3), 11-21.
- Chawla, L. (1999). Life paths into effective environmental action. *The Journal of Environmental Education*, 31(1), 15-26.
- Cheah, I., & Phau, I. (2011). Attitudes towards environmentally friendly products: The influence of ecoliteracy, interpersonal influence and value orientation. *Marketing Intelligence & Planning*, 29(5), 452-472.
- Chekima, B., Wafa, S. A. W. S. K., Igau, O. A., Chekima, S., & Sondoh, S. L. (2016). Examining green consumerism motivational drivers: Does premium price and demographics matter to green purchasing? *Journal of Cleaner Production*, 112, 3436-3450.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307-319.
- Chen, N. H., & Wei, S. (2012). Ends justify means? Organic cotton products' purchasing motivations. *Agribusiness*, 28(4), 440-450.
- Cherrier, H., Szuba, M., & Özçağlar-Toulouse, N. (2012). Barriers to downward carbon emission: Exploring sustainable consumption in the face of the glass floor. *Journal of Marketing Management*, 28(3/4), 397-419.

- Cleveland, M., Kalamas, M., & Laroche, M. (2005). Shades of green: Linking environmental locus of control and pro-environmental behaviours. *Journal of Consumer Marketing*, 22(4), 198-212.
- Cleveland, M., Kalamas, M., & Laroche, M. (2012). "It's not easy being green": Exploring green creeds, green deeds, and internal environmental locus of control. *Psychology & Marketing*, 29(5), 293-305.
- Coleman, L. J., Bahnan, N., Kelkar, M., & Curry, N. (2011). Walking the walk: How the theory of reasoned action explains adult and student intentions to do green. *The Journal of Applied Business Research*, 27(3), 107-116.
- Cooper, D. R., & Schindler, P. S. (2011). *Business research methods* (11th ed.). New York, NY: McGraw-Hill/Irwin.
- Cowan, K., & Kinley, T. (2014). Green spirit: Consumer empathies for green apparel. *International Journal of Consumer Studies*, 38, 493-499.
- Davari, A., & Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental belief and behaviours. *Journal of Strategic Marketing*, 22(7), 563-586.
- De Leeuw, A., Valois, P., Ajzen, I., & Schmidt, P. (2015). Using the theory of planned behaviour to identify key beliefs underlying pro-environmental behaviour in high-school students: Implications for educational interventions. *Journal of Environmental Psychology*, 42, 128-138.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The sage handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatkos, R. (2006). Green products and corporate strategy: An empirical investigation. *Society and Business Review*, 1(2), 144-157.
- Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why don't consumers consume ethically? *Journal of Consumer Behaviour*, 9(6), 426-436.

- Essoussi, L. H., & Linton, J. D. (2010). New or recycled products: How much are consumers willing to pay? *Journal of Consumer Marketing*, 27(5), 458-468.
- European Environment Agency. (2015). *The European environment—State and outlook 2015*. Retrieved from <http://www.eea.europa.eu/soer#tab-synthesis-report>
- Eze, U. C., & Ndubisi, N. O. (2013). Green buyer behaviour: Evidence from Asian consumers. *Journal of Asian and African Studies*, 48(4), 413-426.
- Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identify and intentions to engage in environmental activism. *Journal of Environmental Psychology*, 28, 318-326.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behaviour: The reasoned action approach*. New York, NY: Psychology Press.
- European Commission. (2013). *Attitudes of Europeans towards building the single market for green products*. Retrieved from [http://ec.europa.eu/public\\_opinion/flash/fl\\_367\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_367_en.pdf)
- Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: A test of a consumer model. *European Journal of Marketing*, 34(5/6), 723-746.
- Fotopoulos, C., & Krystallis, A. (2002). Purchasing motives and profile of the Greek organic consumer: A countrywide survey. *British Food Journal*, 104(9), 730-765.
- Fraj, E., & Martinez, E. (2006). Ecological consumer behaviour: An empirical analysis. *International Journal of Consumer Studies*, 31(1), 26-33.
- Fraj-Andrés, E., & Martínez-Salinas, E. (2007). Impact of environmental knowledge on ecological consumer behaviour. *Journal of International Consumer Marketing*, 19(3), 73-102.
- Fransson, N., & Garling, T. (1999). Environmental concern: Conceptual definitions, measurement methods, and research findings. *Journal of Environmental Psychology*, 19(4), 369-382.

- Fuentes, C. (2014). Managing green complexities: Consumers' strategies and techniques for greener shopping. *International Journal of Consumer Studies*, 38(5), 485-492.
- Gam, H. J. (2011). Are fashion-conscious consumers more likely to adopt eco-friendly clothing? *Journal of Fashion Marketing and Management*, 15(2), 178-193.
- Gan, C., Wee, H. Y., Ozanne, L., & Kao, T. H. (2008). Consumers' purchasing behaviour towards green products in New Zealand. *Innovative Marketing*, 4(1), 93-102.
- Geller, E. S. (1995). Actively caring for the environment: An integration of behaviourism and humanism. *Environment and Behaviour*, 27, 184-195.
- Go Green Expo. (2015). *About: GoGreenExpo*. Retrieved from <http://www.gogreenexpo.co.nz/about/>
- Goswami, P. (2008). Is the urban Indian consumer ready for clothing with eco-labels? *International Journal of Consumer Studies*, 32, 438-446.
- Goulding, C. (2002). *Grounded theory: A practical guide for management, business, and market researchers*. London, United Kingdom: SAGE.
- Grbich, C. (2013). *Qualitative data analysis: An introduction* (2nd ed.). London, United Kingdom: SAGE.
- Han, S., Lerner, J., & Keltner, D. (2007). Feelings and consumer decision making: The appraisal-tendency framework. *Journal of Consumer Psychology*, 17(3), 158-168.
- Harris, P. G. (2006). Environmental perspective and behaviour in China: Synopsis and bibliography. *Environment and Behaviour*, 38(1), 5-21.
- Hassan, L. M., Shiu, E., & Parry, S. (2016). Addressing the cross-country applicability of the theory of planned behaviour (TPB): A structured review of multi-country TPB studies. *Journal of Consumer Behaviour*, 15, 72-86.
- Hartmann, P., & Apaolaza-Ibáñez, V. (2012). Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research*, 65(9), 1254-1263.

- Haytko, D. L., & Matulich, E. (2008). Green advertising and environmentally responsible consumer behaviours: Linkages examined. *Journal of Management and Marketing Research*, 1(1), 5-14.
- Henion, K. E. (1972). The effect of ecologically relevant information on detergent sales. *Journal of Marketing Research*, 9(1), 10-14.
- Hobson, K. (2003). Consumption, environmental sustainability and human geography in Australia: A missing research agenda? *Australian Geographical Studies*, 41(2), 148-155.
- Hofstede, G. H. (1984). *Culture's consequences: International differences in work-related values*. Newbury Park, CA: Sage.
- Hopper, P. (2007). *Understanding cultural globalisation*. Cambridge, United Kingdom: Polity Press.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6(2/3), 94-110.
- Hume, S., Strand, P., Fisher, P., Fitzgerald, K., & Freeman, L. (1989). Consumers go green. *Advertising Age*, 25, 3-5.
- Jägel, T., Keeling, K., Reppel, A., & Gruber, T. (2012). Individual values and motivational complexities in ethical clothing consumption: A means-end approach. *Journal of Marketing Management*, 28(3), 373-396.
- Johnstone, M. L., & Tan, L. P. (2015). An exploration of environmentally-conscious consumers and the reasons why they do not buy green products. *Marketing Intelligence & Planning*, 33(3), 330-347.
- Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: A cross-market examination. *Journal of Consumer Marketing*, 16, 441-446.

- Khare, A. (2015). Antecedents to green buying behaviour: A study on consumers in an emerging economy. *Marketing Intelligence & Planning*, 33(3), 309-329.
- Kim, S., Jeong, S., & Hwang, Y. (2012). Predictors of pro-environmental behaviours of American and Korean students: The application of the theory of reasoned action and protection motivation theory. *Science Communication*, 35(2), 168-188.
- Kinnear, T. C., Taylor, J. R., & Ahmed, S. A. (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing*, 38(2), 20-24.
- Klöckner, C. A. (2013). A comprehensive model of the psychology of environmental behaviour—A meta-analysis. *Global Environmental Change*, 23(5), 1028-1038.
- Knussen, C., Yule, F., MacKenzie, J., & Wells, M. (2004). An analysis of intentions to recycle household waste: The roles of past behaviour, perceived habit, and perceived lack of facilities. *Journal of Environmental Psychology*, 24, 237-246.
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, 8(3), 239-260.
- Kumar, P., & Ghodeswar, B. M. (2015). Factors affecting consumers' green product purchase decisions. *Marketing Intelligence & Planning*, 33(3), 330-347.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503-520.
- Laroche, M., Bergeron, J., Tomiuk, M., & Barbaro-Forleo, G. (2002). Cultural differences in environmental knowledge, attitudes, and behaviours of Canadian consumers. *Canadian Journal of Administrative Sciences*, 19(3), 267-283.
- Lemke, F., & Luzio, J. P. P. (2014). Exploring green consumers' mind-set toward green product design and life cycle assessment. *Journal of Industrial Ecology*, 18(5), 619-630.

- Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. *Journal of Marketing Management*, 26(13/14), 1319-1344.
- Lim, W. M., Ting, D. H., Ng, W. K., Chin, J. H., & Boo, W. A. (2013). Why green products remain unfavourable despite being labelled environmentally-friendly? *Contemporary Management Research*, 9(1), 35-45.
- Matthes, J., & Wonneberger, A. (2014). The sceptical green consumer revisited: Testing the relationship between green consumerism and scepticism toward advertising. *Journal of Advertising*, 43(2), 115-127.
- McCarty, J. A., & Shrum, L. J. (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behaviour. *Journal of Public Policy & Marketing*, 20(1), 93-104.
- McDonald, S., Oates, C. J., Alevizou, P. J., Young, C. W., & Hwang, K. (2012). Individual strategies for sustainable consumption. *Journal of Marketing Management*, 28(3/4), 445-468.
- Megicks, P., Memery, J., & Angell, R. J. (2012). Understanding local food shopping: Unpacking the ethical dimension. *Journal of Marketing Management*, 28(3/4), 264-289.
- Mooij, M. K. D. (2014). *Global marketing and advertising: Understanding cultural paradoxes* (4th ed.). Thousand Oaks, CA: SAGE.
- Moons, I., & Pelsmacker, P. D. (2012). Emotions as determinants of electric car usage intention. *Journal of Marketing Management*, 28(3/4), 195-237.
- Myers, M. D. (2009). *Qualitative research in business & management*. London, United Kingdom: SAGE.
- Oreg, S., & Katz-Gerro, T. (2006). Predicting proenvironmental behaviour cross-nationally: Values, the theory of planned behaviour, and value-belief-norm theory. *Environment and Behaviour*, 38(4), 462-483.

- Ottman, J. A. (1993). *Green marketing*. Lincolnwood, Ill: NTC Business Books.
- Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. *Environment*, 48(5), 22-36.
- Ozanne, L. K., & Vlosky, R. P. (1997). Willingness to pay for environmentally certified wood products: A consumer perspective. *Forest Products Journal*, 47(6), 39-48.
- Paco, A. D., Alves, H., Shiel, C., & Filho, W. L. (2013). A multi-country level analysis of the environmental attitudes and behaviours among young consumers. *Journal of Environmental Planning and Management*, 56(10), 1532-1548.
- Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behaviour antecedents: Environmental concern, knowledge, and beliefs. *Psychology and Marketing*, 31(5), 335-348.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behaviour and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123-134.
- Peattie, K. (1992). *Green marketing*. London, United Kingdom: The M+E Handbooks.
- Peattie, K. (2010). Green consumption: Behaviour and norms. *Annual Review of Environment and Resources*, 35(1), 195-228.
- Pedersen, E. R., & Neergaard, P. (2006). Caveat emptor – Let the buyer beware! Environmental labelling and the limitations of ‘green’ consumerism. *Business Strategy and the Environment*, 15, 15-29.
- Polonsky, M. J., Vocino, A., Grau, S. L., Garma, R., & Ferdous, S. (2012). The impact of general and carbon-related environmental knowledge on attitudes and behaviour of US consumers. *Journal of Marketing Management*, 28(3/4), 238-263.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W. E., Luchs, M. G., Ozanne, L. K., & Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30(1), 31-38.

- Quester, P., Neal, C., Pettigrew, S., Grimmer, M., Davis, T., & Hawkins, D. (2007). *Consumer behaviour: Implications for marketing strategy* (5th ed.). North Ryde, Australia: McGraw-Hill Education.
- Rettie, R., Burchell, K., & Riley, D. (2012). Normalising green behaviours: A new approach to sustainability marketing. *Journal of Marketing Management*, 28(3/4), 420-444.
- Riley, L. S., Kohlbacher, F., & Hofmeister, A. (2012). A cross-cultural analysis of pro-environmental consumer behaviour among seniors. *Journal of Marketing Management*, 28(3/4), 290-312.
- Ritter, A. M., Borchardt, M., Vaccaro, G. L. R., Pereira, G. M., & Almeida, F. (2014). Motivations for promoting the consumption of green products in an emerging country: Exploring attitudes of Brazilian consumers. *Journal of Cleaner Production*, 106, 507-520.
- Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, 36, 217-231.
- Sarkar, A. N. (2012). Green branding and eco-innovations for evolving a sustainable green marketing strategy. *Asia-Pacific Journal of Management Research and Innovation*, 8(1), 39-58.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th ed.). New York, NY: Prentice Hall.
- Schäfer, M., Jaeger-Erben, M., & Bamberg, S. (2012). Life events as windows of opportunity for changing towards sustainable consumption patterns? Results from an intervention study. *Journal of Consumer Policy*, 35(1), 65-84.
- Schiffman, L., O'Cass, A., Paladino, A., & Carlson, J. (2014). *Consumer behaviour* (6th ed.). Sydney, Australia: Pearson Australia.
- Schweper, C. H., & Cornwell, B. T. (1991). An examination of ecologically concerned consumers and their intention to purchase ecologically packaged foods. *Journal of Public Policy & Marketing*, 10(2), 77-101.

- Shao, J., Taisch, M., & Ortega-Mier, M. (2016). A grey-decision-making trial and evaluation laboratory (DEMATEL) analysis on the barriers between environmentally friendly products and consumers: Practitioners' viewpoints on the European automobile industry. *Journal of Cleaner Production*, 112, 3185-3194.
- Silva, A. P., Figueiredo, I., Hogg, T., & Sottomayor, M. (2014). Young adults and wine consumption a qualitative application of the theory of planned behaviour. *British Food Journal*, 116(5), 832-848.
- Simmons, D., & Widmar, R. (1990). Motivations and barriers to recycling: Toward a strategy for public education. *Journal of Environmental Education*, 22, 13–18.
- Smith, S. & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal*, 18(2), 93-104.
- Smith, S., Varble, S., & Secchi, S. (2015). Fish consumers: Environmental attitudes and purchasing behaviour. *Journal of Food Products Marketing*, 1, 1-17.
- Squires, L., Juric, B., & Cornwell, T. B. (2001). Level of market development and intensity of organic food consumption: Cross-cultural study of Danish and New Zealand consumers. *The Journal of Consumer Marketing*, 18(4/5), 392-409.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56(3), 407-424.
- Suchard, H. T., & Polonski, M. J. (1991). A theory of environmental buyer behaviour and its validity: The environmental action-behaviour model. *American Marketing Association*, 2, 187-201.
- Sun, M. X., Yang, X. C., Huisingh, D., Wang, R. Q., & Wang, Y. T. (2015). Consumer behaviour and perspectives concerning spent household battery collection and recycling in China: A case study. *Journal of Cleaner Production*, 107, 775-785.
- Takhar-Lail, A., & Ghorbani, A. (2015). *Market research methodologies: Multi-method and qualitative approaches*. Hershey, PA: Business Science Reference.

- Tang, Y., Wang, X., & Lu, P. (2014). Chinese consumer attitude and purchase intent towards green products. *Asia-Pacific Journal of Business Administration*, 6(2), 84-96.
- Terry, D. J., Hogg, M. A., & White, K. M. (1999). The theory of planned behaviour: Self-identify, social identity and group norms. *British Journal of Social Psychology*, 38, 225-244.
- The Hofstede Centre. (2016). *Compare Countries*. Retrieved from <http://geert-hofstede.com/new-zealand.html>
- Thøgersen, J. (2005). How may consumer policy empower consumers for sustainable lifestyles? *Journal of Consumer Policy*, 28(2), 143-178.
- Thøgersen, J. (2011). Green shopping: For selfish reasons or the common good. *American Behavioural Scientist*, 55(8), 1052-1076.
- Thøgersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing*, 44(11/12), 1787-1810.
- Thøgersen, J., & Zhou, Y. (2012). Chinese consumers' adoption of a 'green' innovation - The case of organic food. *Journal of Marketing Management*, 28(3), 313-333.
- Tilikidou, I., & Delistavrou, A. (2014). Pro-environmental purchasing behaviour during the economic crisis. *Marketing Intelligence & Planning*, 32(2), 160-173.
- Tourism New Zealand. (2016). *About newzealand.com*. Retrieved from <http://www.newzealand.com/int/>
- Transcribe. (2015). *Transcribe—Online transcription and dictation software*. Retrieved from <https://transcribe.wreally.com/>
- Trivedi, R. H., Patel, J. D., & Savalia, J. R. (2015). Pro-environmental behaviour, locus of control and willingness to pay for environmental friendly products. *Marketing Intelligence & Planning*, 33(1), 67-89.
- Tucker, L. R. (1978). The environmentally concerned citizen: Some correlates. *Environment and Behaviour*, 10(3), 389-418.

- United Nations Industrial Development Organisation. (2011). *UNIDO green industry: Policies for supporting green industry*. Retrieved from [https://www.unido.org/fileadmin/user\\_media/Services/Green\\_Industry/web\\_policies\\_green\\_industry.pdf](https://www.unido.org/fileadmin/user_media/Services/Green_Industry/web_policies_green_industry.pdf)
- Verplanken, B., & Wood, W. (2006). Interventions to break and create consumer habits. *Journal of Public Policy & Marketing*, 25(1), 90-103.
- Vicente-Molina, M. A., Fernandez-Sainz, A., & Izagirre-Olaizola, J. (2013). Environmental knowledge and other variables affecting pro-environmental behaviour: Comparison of university students from emerging and advanced countries. *Journal of Cleaner Production*, 61, 130-138.
- Wagner, S. A. (2003). *Understanding green consumer behaviour: A qualitative cognitive approach*. New York, NY: Routledge.
- Warren, C. A. B., & Karner, T. X. (2010). *Discovering qualitative methods: Field research, interviews, and analysis* (2nd ed.). New York, NY: Oxford University Press.
- Watkins, L., Aitken, R., Hinder, C., Lawson, R., Mather, D., Paul, A., Robertson, K., & Williams, J. (2015). The New Zealand consumer lifestyle segments. *New Zealand Sociology*, 30(1), 111-130.
- Wong, V., Turner, W., & Stoneman, P. (1996). Marketing strategies and market prospects for environmentally-friendly consumer products. *British Journal of Management*, 7(3), 263-281.
- World Bank. (2013). *New Zealand*. Retrieved from [http://data.worldbank.org/country/new-zealand#cp\\_wdi](http://data.worldbank.org/country/new-zealand#cp_wdi)
- World Bank. (2015a). *China Overview*. Retrieved from <http://www.worldbank.org/en/country/china/overview>
- World Bank. (2015b). *Pollution*. Retrieved from <http://www.worldbank.org/en/topic/environment/brief/pollution>

- Yazdanpanah, M., & Forouzani, M. (2015). Application of the theory of planned behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342-352.
- Yeoman, I., Palomino-Schalscha, M., & McMahon-Beattie, U. (2015). Keeping it pure: Could New Zealand be an eco paradise? *Journal of Tourism Futures*, 1(1), 19-35.
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: Green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), 18-31.
- Zheng, Y., & Chi, T. (2015). Factors influencing purchase intention towards environmentally friendly apparel: An empirical study of US consumers. *International Journal of Fashion Design, Technology and Education*, 8(2), 68-77.

## APPENDICES

### Appendix 1: Interview Protocol

Interview Protocol (English)
<b>Basic Information:</b> age, gender, education level, family size, occupation.
<b>Question Set 1—Environment (General Questions):</b> <ul style="list-style-type: none"> <li>What do you think is the most pressing environmental issue facing us?</li> <li>How do you learn about this environmental issue?</li> <li>By knowing the environmental issue, how does it affect you? Tell me your thoughts and feelings</li> </ul>
<b>Question Set 2—Current Behaviours:</b> <ul style="list-style-type: none"> <li>What behaviours do you currently participate in that you feel will positively impact the environment?</li> <li>Why do you participate in green behaviours?</li> <li>Why do you buy environmentally friendly products?</li> </ul>
<b>Question Set 3—Green Products:</b> <ul style="list-style-type: none"> <li>How do you evaluate and choose your environmentally friendly products?</li> <li>How do you know the environmentally friendly products you have bought?</li> <li>What do you think about the price of environmentally friendly products?</li> </ul>
<b>Question Set 4—Post-buy Behaviours:</b> <ul style="list-style-type: none"> <li>What is your satisfaction level with environmentally friendly products?</li> <li>How long have you been purchasing/consuming environmentally friendly products?</li> <li>What are your most often purchased environmentally friendly products and why?</li> <li>What are the reasons that keep you purchasing those products?</li> <li>Is there anything else you would like to add or any suggestions towards environmentally friendly products?</li> </ul>
Interview Protocol (Chinese)
<b>基本信息:</b> 年龄, 性别, 教育程度, 家庭成员, 职业, 在新西兰多久了。
<b>问题系列 1—环境:</b> <ul style="list-style-type: none"> <li>你觉得目前我们面临最主要的环境问题是什么?</li> <li>你是怎样了解到这些环境问题的?</li> <li>有了这些了解后, 对你有什么影响? 请讲一下你的想法和感受。</li> </ul>
<b>问题系列 2—目前行为:</b> <ul style="list-style-type: none"> <li>你目前在做哪些事情觉得会正面的影响环境?</li> <li>为什么会参与这类环保行为?</li> <li>购买绿色环保友好型产品的原因是什么?</li> </ul>
<b>问题系列 3—关于环保产品:</b> <ul style="list-style-type: none"> <li>你是怎样从这些绿色环保友好型产品里做筛选的, 做最后购买选择的?</li> <li>你是如何了解到你购买的这些绿色环保友好型产品?</li> <li>你认为这些产品的价格如何?</li> </ul>
<b>问题系列 4—购买后行为:</b> <ul style="list-style-type: none"> <li>你对所购买的绿色环保友好型产品的满意度是多少?</li> <li>你购买消费这些产品多久了?</li> <li>最经常购买的绿色环保友好型产品是什么, 为什么?</li> <li>一直让您购买的原因是什么?</li> <li>对于这些绿色环保友好型产品, 还有其它的建议或者需要补充的吗?</li> </ul>

## Appendix 2: Human Ethics Committee Approval



### HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen  
Email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)

Ref: HEC 2015/51/LR

30 July 2015

Wenjing Zhen  
Department of Management, Marketing & Entrepreneurship  
UNIVERSITY OF CANTERBURY

Dear Wenjing

Thank you for forwarding your Human Ethics Committee Low Risk application for your research proposal "A comparison of New Zealand and Chinese consumers pro-environmental attitudes and behaviours".

I am pleased to advise that this application has been reviewed and I confirm support of the Department's approval for this project.

With best wishes for your project.

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. MacDonald'.

Lindsey MacDonald  
***Chair, Human Ethics Committee***

## Appendix 3: Print Advertising

Figure 2: Print Advertising English Version

Research Participants Invited (Aged 18+)	
<b>Title</b>	A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviours
<b>Description</b>	You will be participating in a research study about purchasing/consuming environmentally friendly /green products.
<b>Reward</b>	A \$20 Westfield Voucher will be given for your participation.
<b>Duration</b>	30 Minutes to 1 Hour Face-to-face Interview
<b>Contact</b>	Rebecca wenjing.zhen@pg.canterbury.ac.nz
<b>Conditions</b>	<ul style="list-style-type: none"> <li>• Aged 18+</li> <li>• English speaking</li> <li>• Have purchasing experiences on green products such as (and not limited to) eco-labelled products, things made from recycling materials, degradable packaging and materials, renewable energy/lighting, energy saving appliances/vehicles, and other general environmentally friendly products (office products, personal care, food and beverages, clothing, shoes, cleaning products, paint, gardening, lawn care and etcetera).</li> </ul>
<b>Ethics Approval Board</b>	This study was approved by University of Canterbury Human Ethics Committee
<b>Ethics Approval Reference</b>	HEC 2015/51/LR
<b>Expires</b>	30 October 2015
<b>Location</b>	University of Canterbury Central Library

Figure 3: Print Advertising Chinese Version

邀请参与调查 (需满 18 岁以上)	
研究主题 (Title)	新西兰与中国消费者在环保态度和行为上的比较 A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviours
描述 (Description)	您将会参与在购买和消费环境友好型/绿色产品方面的调查
报酬 (Reward)	每位参与者都会获得一张 \$20 Westfield Voucher 作为报酬
时长 (Duration)	30 分钟到 1 个小时左右的面对面的匿名采访
联系方式 (Contact)	Rebecca wenjing.zhen@pg.canterbury.ac.nz
参与需要满足的条件 (Conditions)	<ul style="list-style-type: none"> <li>• 18 岁及以上</li> <li>• 说中文或者英文</li> <li>• 有过以下或者更多环保产品的购买经历: 带有环保生态标签的产品, 带有可回收利用材料的产品, 带有可降解包装的产品, 可再生能源, 节能节电的产品, 交通工具, 其他环保绿色产品如办公用品, 日用品, 食品饮料, 衣服鞋子, 清洁用品, 园艺和草坪护理用品等。</li> </ul>
道德批准委员会 (Ethics Approval Board)	这份调查研究已被 University of Canterbury Human Ethics Committee 批准
道德批准参照 (Ethics Approval Reference)	HEC 2015/51/LR
截止日期 (Expires)	2015 年 10 月 30 号
采访地点 (Location)	坎特伯雷大学图书馆

## Appendix 4: e-Advertising

Figure 4: e-advertising English Version

Hi there, I'm currently working on a research project called "A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviour". I'm seeking New Zealand participants who are over 18 years old and have purchased/consumed in environmentally-/eco-friendly/green products. It will be a 30 – 60 minutes face-to-face anonymous interview, and you will be rewarded a \$20 Westfield voucher for participation. Anyone who is interested in this research, please contact Rebecca ([wenjing.zhen@pg.canterbury.ac.nz](mailto:wenjing.zhen@pg.canterbury.ac.nz)) to participate in the interview. Interviews will be conducted in discussion rooms in Central Library, and this advertising expires on October 30, 2015. Thanks!

Figure 5: e-advertising Chinese Version

你好，我目前在做一个关于“新西兰和中国绿色消费者的环保态度与消费行为”的调查。我在寻找中国绿色消费者，需满 18 岁以上，有经常购买环境友好型产品 (Environmentally-/Eco-Friendly/Green Products) 的经历，衣食住行方面的购买和消费都可以。这个调查是 30 至 60 分钟左右的面对面匿名采访。每位参与者都会获得 NZ\$20 Westfield Voucher 作为报酬。如果你满足条件且有意参与调查，请联系 Rebecca ([wenjing.zhen@pg.canterbury.ac.nz](mailto:wenjing.zhen@pg.canterbury.ac.nz)) 商讨采访时间。采访地点在坎大图书馆的 discussion room。截止日期为 2015 年 10 月 30 日。谢谢！

## Appendix 5: Information Sheet

Department of Management, Marketing and Entrepreneurship  
Email: wenjing.zhen@pg.canterbury.ac.nz  
27 July 2015



### **A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviours**

#### **Information Sheet for Participants**

I'm Wenjing Zhen, a master student currently studying at the University of Canterbury. The purpose of this research is to explore pro-environmental/green consumers' purchasing attitudes and behaviours, both New Zealand and Chinese consumers.

Your involvement in this project will be answering some research questions and expressing your opinions and comments based on your experience. Data will be audio recorded, and the estimated time required will be within 20-60 minutes.

You may receive a copy of the project results by contacting the researcher at the conclusion of the project.

Participation is voluntary and you have the right to withdraw at any stage without penalty. If you withdraw, I will remove information relating to you. However, once all interview are complete and the analysis is conducted it becomes impossible to remove the information.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public without your prior consent. To ensure anonymity and confidentiality, I will assign participants a code on the consent form and using that code on any data and transcripts to ensure the information will strictly remains confidential. Only the researcher Wenjing Zhen and her supervisor Lucie Ozanne will have access to the data. According to the standard Human Ethics Committee principles, data from research projects will be kept safely and locked in supervisor's office; and the raw data of the project will be destroyed after 5 years in terms of Master studies. A thesis is a public document and will be available through the UC Library.

The project is being carried out as a requirement for Master of Commerce in Marketing by Wenjing Zhen, under the supervision of Lucie Ozanne, who can be contacted at (lucie.ozanne@canterbury.ac.nz). She will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form and give it back to the researcher before conducting the interview.

Wenjing Zhen

## Appendix 6: Consent Form

Department of Management, Marketing and Entrepreneurship  
Email: wenjing.zhen@pg.canterbury.ac.nz  
27 July 2015



### **A Comparison of New Zealand and Chinese Consumers' Pro-environmental Attitudes and Behaviours**

#### **Consent Form for Participants**

I have been given a full explanation of this project and have had the opportunity to ask questions.

I understand what is required of me if I agree to take part in the research.

I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.

I understand that any information or opinions I provide will be kept confidential to the researcher Wenjing Zhen and her supervisor Lucie Ozanne, and that any published or reported results will not identify the participants. I understand that a thesis is a public document and will be available through the UC Library.

I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after five years.

I understand the risks associated with taking part and how they will be managed.

I understand that I am able to receive a report on the findings of the study by contacting the researcher at the conclusion of the project.

I understand that I can contact the researcher Wenjing Zhen (wenjing.zhen@pg.canterbury.ac.nz) or supervisor Lucie Ozanne (lucie.ozanne@canterbury.ac.nz) for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)

By signing below, I agree to participate in this research project.

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Your name]

## Appendix 7: Transcribed Interviews Duration Summary

#	Duration (Minutes)	Number of Pages (English)	Number of Pages (Chinese)
New Zealand (NZ) Informants Transcripts			
NZ #1	38	7	N/A
NZ #2	44	9	
NZ #3	35	8	
NZ #4	55	12	
NZ #5	70	11	
NZ #6	46	10	
NZ #7	38	8	
NZ #8	54	12	
NZ #9	61	13	
NZ #10	30	8	
Chinese (CN) Informants Transcripts			
CN #1	55	8	7
CN #2	45	10	9
CN #3	48	10	11
CN #4	41	7	6
CN #5	46	10	9
CN #6	70	12	15
CN #7	48	10	9
CN #8	65	14	15
CN #9	96	16	21
CN #10	50	11	13
Total Pages	321 pages (Font 12; Single-spaced; Margins 2.54 all round)		