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**Toward A Comprehensive Model of the  
Consumer Ethical Decision Making Process  
—An Examination of Regulatory Focus and Ethical  
Ideology**

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M.Phil

The Hong Kong Polytechnic University

2012

The Hong Kong Polytechnic University  
Department of Management and Marketing

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A thesis submitted in partial fulfilment of the requirements for  
the degree of Master of Philosophy

August 2011

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## **ABSTRACT**

The present study proposes and tests a consumer ethical decision making model by examining the influence of regulatory focus and ethical ideology. This study argues that regulatory focus (promotion focus versus prevention focus) determines ethical ideology (relativism versus idealism), which in turn, influences individual ethical judgment. In particular, it is hypothesized that promotion focus has a positive effect on relativism but a negative impact on idealism. In contrast, prevention focus positively relates to idealism but negatively associates with relativism. Whereas idealism is hypothesized to have a positive impact on ethical judgment, relativism is predicted to have a negative influence on ethical judgment, which in turn, has a positive effect on ethical intention. The current study further predicts that attention to social comparison information (ATSCI) attenuates the negative influence of relativism on ethical judgment.

To verify the predictions, a questionnaire survey of 350 consumers regarding 'bringing your own shopping bags' (BYOB) practices was conducted in Hong Kong. Structural Equation Modeling (SEM) was employed to test the proposed model, which is generally supported. It was found that prevention focus had a positive impact on idealism but no influence on relativism; promotion focus was positively associated with relativism but negatively related to idealism. Idealism was observed to have a positive impact on ethical judgment, while relativism was found to be negatively associated with ethical judgment. In addition, the moderating effect of

ATSCI on the negative impact of relativism on ethical judgment was marginally supported. Ethical judgment was found to have a positive impact on ethical intention. Theoretically, the current research makes the initial attempt to introduce regulatory focus theory to the consumer ethics research to explore the interrelationship between regulatory focus and ethical ideology and to reconcile the prior inconsistent findings regarding the relationships among personality, ethical ideology, and ethical judgment in the consumer ethical decision making process. Furthermore, this study identifies the boundary condition for the relationship between relativism and ethical judgment by introducing ATSCI as a moderator. Practically, the findings of the relationship between regulatory focus and ethical ideology, as well as the introduction of ATSCI, shed light on the promotion of ethical/green behaviors among consumers. This is elaborated on and discussed in Chapter 6. By understanding the underlying mechanism of consumer ethical decision making, policy makers can fine-tune strategies to cope with unethical consumer practices, while, at the same time, advocating ethical behaviors among consumers.

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# TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION .....	10
1.1 Research Background.....	10
1.1.1 Practical Background.....	10
1.1.2 Theoretical Motivation.....	15
1.2 Research Objectives.....	19
1.3 Research Questions.....	19
CHAPTER 2 LITERATURE REVIEW .....	23
2.1 Consumer Ethics .....	23
2.1.1 Consumers' Green Behaviors .....	25
2.1.2 Consumer Ethical Decision Making Models .....	27
2.2 Regulatory Focus .....	29
2.2.1 Prevention Focus VS. Promotion Focus .....	31
2.2.2 The Potential of Regulatory Focus in Consumer Ethics Research .....	35
2.3 Ethical Ideology .....	37
2.4 Ethical Judgment and Ethical Intention .....	39
2.5 Attention to Social Comparison Information.....	41
CHAPTER 3 RESEARCH MODEL AND HYPOTHESES .....	45
3.1 Relationship between Regulatory Focus and Ethical Ideology .....	46
3.1.1 Prevention Focus and Ethical Ideology .....	47
3.1.2 Promotion Focus and Ethical Ideology.....	49
3.2 Ethical Ideology and Ethical Judgment .....	52
3.3 Relationship between Ethical Judgment and Ethical Intention.....	53
3.4 The Moderating Role of Attention to Social Comparison Information.....	54
3.5 Control Variables .....	58
CHAPTER 4 RESEARCH METHODOLOGY .....	60
4.1 Site Selection .....	60
4.2 Pilot Study.....	61
4.2.1 Data Collection .....	61
4.2.2 Measurement.....	63
4.2.3 Reliability and Validity.....	67
4.3 Main Study.....	70
4.3.1 Data Collection .....	70
4.3.2 Representativeness of Sample.....	71
4.4.3 Sample Size.....	73
4.3.4 Measurement.....	73
4.4 Summary .....	81
CHAPTER 5 RESULTS .....	82
5.1 Sample Characteristics .....	82
5.2 Descriptive Statistics.....	84
5.3 Normality of Data .....	86
5.4 Scale Reliability and Validity Test .....	88

5.4.1 Reliability Test.....	89
5.4.2 Confirmatory Factor Analysis.....	91
5.5 Common Methods Variance .....	100
5.6 Correlation Matrix .....	104
5.7 Hypotheses Testing with Structural Equation Modeling .....	105
5.7.1 Structural Model Analysis .....	107
5.7.2 Moderating Effect with Multiple Group Analysis .....	111
5.8 Summary .....	115
CHAPTER 6 DISCUSSION.....	119
6.1 Achievement of Research Objectives .....	119
6.2 Discussion of Results of Hypotheses .....	120
6.3 Contribution .....	126
6.3.1 Theoretical Contribution .....	126
6.3.2 Managerial Implications .....	129
CHAPTER 7 CONCLUSION.....	132
7.1 Summary .....	132
7.2 Limitations and Future Research .....	133
REFERENCES .....	137
APPENDIX I Questionnaire of Pilot Study .....	156
APPENDIX II Questionnaire of Main Study.....	160

# **CHAPTER 1 INTRODUCTION**

This chapter presents an introduction to this research project. First, both the practical and theoretical backgrounds of this study are provided. Next, the research objectives, as well as the research questions which form the foundation of this study are presented. Finally, the overall structure of this study is outlined.

## **1.1 Research Background**

The research background of this study is divided into two categories. The practical importance of consumer green behaviors and consumers' BYOB (Bring Your Own Shopping Bags) practices is presented first. Then, the corresponding theoretical background on consumer ethics and consumer environmental practices is discussed, including the research gaps in this area which need to be filled.

### **1.1.1 Practical Background**

Before the 1960s, green marketing was still a marginal issue that few people paid attention to. However, since the 1960s, people have been increasingly concerned about sustainable development (Kalafatis, Pollard, East, & Tsogas, 1999; Zinkhan & Carlson, 1995). Such public concern for environmental issues has stemmed from the deterioration of environmental conditions which has been a significant side effect of

the technological breakthroughs and rapid industrialization of the past few decades. (Kalafatis, et al., 1999; Zinkhan & Carlson, 1995). Today, people pay more and more attention to the concept of ‘sustainable consumption’ which is becoming a primary policy objective all over the world in the new millennium (Kalafatis, et al., 1999; Seyfang, 2006). How to integrate sustainable practices into the everyday lives of individuals has been a major challenge for policy-makers who are seeking long-term sustainability (Seyfang, 2006).

Contrary to the common belief that consumers’ green behaviors are not related to their morality, many argue that consumers’ decisions to engage in ecologically supportive behaviors are usually ethically motivated and reflect their moral concerns for the perceived socio-environmental impacts of their behaviors (Black, Stern, & Elworth, 1985; Caruana, 2007; Seyfang, 2006; Thøgersen, 1999). The nature of consumer ethics is pluralistic and the study of consumers’ green behaviors has gained prominence in the realm of consumer ethics (Vitell, et al., 2001; Vitell & Muncy, 1992). Consumers’ moral concerns for the environment will influence their environmental decision making, as is exemplified by the argument that consumers with a higher degree of moral concern for environment are more likely to engage in environmental-supportive behaviors (Black, et al., 1985; Seyfang, 2006; Thøgersen, 1999).

Consumers’ commitments to the environment may take many forms (Kennedy, Beckley, McFarlane, & Nadeau, 2009), such as reducing household energy or water, recycling, bringing their own shopping bags (BYOB), or purchasing green products (Brandon & Lewis, 1999; Chan, et al., 2008; Chan & Lau, 2002; Cherrier, 2006).

Among these, BYOB is a relatively new type of green behavior due to the recently introduced environmental policies, which aim to cope with the severe environmental pollution caused by the excessive use of disposable plastic bags (Reuseit, 2007).

When plastic bags were introduced around 25 years ago, they seemed to be great innovations with considerable advantages such as cheaper cost, lighter weight, and more waterproof (China Daily, 2005; MEPPRC, 2008). Although disposable plastic bags provide convenience to consumers, they have resulted in a serious waste of resources and environmental pollution due to their excessive use by consumers, and the inadequate levels of recycling of these bags, among other reasons (The New York Times, 2008). The environmental problem caused by disposable plastic bags is called “White Pollution,” a term specifically created to describe the phenomena of white plastic bags stacked throughout the country (China Daily, 2005). According to the statistics, disposable plastic bags are widely and frequently used by Chinese consumers; up to three billion plastic bags are consumed per day in China (American.com, 2008). Most plastic bags are distributed by supermarkets and various retail stores. These bags are usually thrown away after just being used only once or twice (Lam & Chen, 2006). Disposable bags not only occupy a lot of space in landfills, but also utilize a considerable amount of energy. At least 1,300 tons of oil per day are used to produce these plastic bags for supermarkets in China alone (MEPPRC, 2008). Furthermore, the toxic components of plastic bags are dangerous and even fatal to the ecosystem. These noxious compositions of plastic bags eventually seep into the soil and waterways, causing harmful effects on the food chain and entire ecosystems (Hawkins, 2010). According to statistics, on average

100,000 animals such as dolphins, turtles whales, and penguins are killed on account of the discarded plastic bags every year. What is worse is that disposed plastic bags remain intact even after the death and decomposition of the animals (Article Alley, 2009). These plastic bags are can last anywhere from a conservative 200 years to an estimated 1 million years in landfill sites (China Daily, 2005).

The indiscriminant use of disposable plastic bags is not only a regional problem. It is a global phenomenon that is worthy of worldwide attention. In the past two decades, more and more countries, regions, and cities, including Ireland, South Africa, Australia, Bangladesh, mainland China, New Zealand, Taiwan, Hong Kong, and San Francisco, have adopted a series of measures with the common aim of reducing the use of disposable plastic bags (Reuseit, 2007). In order to deal with the severe environmental problems that arise from disposable plastic bags, government officials have introduced a variety of practices to discourage the use of disposable plastic bags. Generally, four methods have been employed by governments to cope with this problem (HKEPD, 2007). The first and most common strategy is to impose an environmental levy on plastic bags at retail level. Under such a levy, retailers are required to charge consumers a certain amount of money for each plastic bag rather than providing customers plastic bags for free. This measure has been implemented by many countries such as Ireland, Taiwan, mainland China and Hong Kong (HKEPD, 2007; The New York Times, 2008). The second measure is the imposition of an environmental levy at the manufacturing or import level. For instance, Denmark, South Africa and Malta have introduced a series of green taxes on plastic bags. Manufacturers and importers are required to pay a tax on plastic bags based on the

weight of plastic bags purchased. Retailers purchase plastic bags at a tax-loaded price, but they are not required to pass the tax on to their customers. The third strategy is to impose a ban on plastic bags. For instance, in 2007, the City Government in San Francisco passed a law banning the use of plastic bags and mandating the use of other kinds of recyclable paper bags and compostable plastic bags in retail stores. The final measure, used in Australia, is voluntary reduction using a series of incentives designed to reduce the use of plastic bags.

All these policies effectively reduced the use of plastic bags after their initial implementation; however, the use of plastic bags gradually rose after the policies had been in place for a period of time, with the exception of the legislative ban of plastic bags by government (HKEPD, 2007). This points to a need to investigate the underlying mechanism of consumers' BYOB practices in order to better promote BYOB among consumers. As suggested by some researchers, consumers' environmentally supportive practices are innately driven by their moral concerns for the environment (Seyfang, 2006; Thøgersen, 1999). Overlooking the ethical bases of consumers' BYOB practices might lead to the failure of environmental policies aimed at reducing the indiscriminant use of plastic bags. Thus, in order to better popularize environmental policies on BYOB practices, this study aims to investigate BYOB practices from the perspective of consumer ethics. The goal is to facilitate a greater understanding of the underlying mechanisms of BYOB practice.

### **1.1.2 Theoretical Motivation**

Marketing ethics have been extensively investigated by researchers in the past few decades. Whereas most of research on marketing ethics is concentrated on the ethicality of marketers, consumer ethics have rarely been explored (Ferrell, et al., 1989; Hunt & Vitell, 1986; Murphy & Laczniak, 1981; Singhapakdi, Vitell, & Kraft, 1996; Tsalikis & Fritzsche, 1989; Vitell, et al., 2001). Consumers and marketers are equally important in the marketing process. Ignoring consumer ethics would result in an incomplete understanding of marketing ethics, thus, there is an urgent need for us to understand more about the ethical decision making of consumers (Murphy & Laczniak, 1981; Vitell, 2003; Vitell & Muncy, 1992). Many theoretical models have been developed for understanding the ethical decision making process in marketing (Dubinsky & Loken, 1989; Ferrell, et al., 1989; Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Jones, 1991). A large number of empirical studies have been conducted to validate these ethical decision making frameworks, most of which focused solely on marketers (Hunt & Vasquez-Parraga, 1993; Mayo & Marks, 1990; Singhapakdi & Vitell, 1990), providing little attention to consumer ethics (Vitell, et al., 2001). According to a recent review article on consumer ethics by Vitell (2003), among the three most utilized models on the ethical decision making process in the marketing ethics literature (Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Trevino, 1986), only the Hunt-Vitell model can be applied to the individual consumer. This is accomplished by expunging the professional, organizational, as well as industrial factors from the model.

Furthermore, in the consumer ethics literature, almost all studies focus on consumer unethical behaviors (illegal or questionable behaviors) such as shoplifting and software piracy, while consumers' ethical behaviors are rarely examined (Krasnovsky & Lane, 1998; Peace, Galletta, & Thong, 2003). Undoubtedly, understanding the cause and prevention of consumers' unethical practices is of practical importance; it is also meaningful, however, to explore the underlying mechanism of consumers' moral conduct and understand how to promote such ethical behaviors (Vitell, 2003). In the classic literature on individual behaviors, performance of behaviors with benign purposes was more extensively studied than was inhibition of behaviors with evil goals (Higgins, 1998). Therefore, the present study investigates consumer ethics with a special focus on consumers' ethical conduct, particularly, the BYOB practice.

The most influential model for studying the consumer ethical decision making process is the Hunt-Vitell model (H-V model; Hunt & Vitell, 1986, 1993, 2006). Many empirical efforts have been devoted to validating the H-V model, yet each of these studies only tested part of this model due to the complexity of the validation of the full model (Singhapakdi & Vitell, 1993). In addition, previous attempts concentrated on the examination of the partial relationship from individual ethical ideology (also named moral philosophy in the H-V model) to ethical judgment, while the antecedents of ethical ideology and the consequences of personal ethical judgment have long been ignored (Vitell, 2003). The Hunt-Vitell model proposes that personal ethical ideology is the core element in explaining individual differences in ethical decision making. Ethical ideology, according to the H-V model, is influenced

by personal characteristics such as personal value system or belief system (Hunt & Vitell, 1993). Compared with the notably extensive examination on the relationship between ethical ideology and ethical judgment, the determinants of individual ethical ideology have received little attention in the marketing ethics literature (Kleiser, Sivadas, Kellaris, & Dahlstrom, 2003; Singhapakdi, Vitell, & Franke, 1999). In addition, ethical judgment has been traditionally taken as a proxy to individual ethical behavioral intention or actual ethical behavior (Steenhaut & Van Kenhove, 2006). However, as suggested in numerous studies, empirical efforts should be extended to consumers' actual behaviors, or at least behavioral intentions, since they are regarded as a better proxy to individual actual performance than judgment and thus may have higher predicting power than ethical judgment with respect to the accurate amount of consumer behaviors (Jones, 1991). Hence, there remains research gaps regarding the antecedents of personal ethical ideology as well as extending the consequence of ethical ideology from ethical judgment to ethical intention.

Actually, prior to the work of Hunt and Vitell (1986), some scholars acknowledged the impact of ethical ideology on ethical judgment (Forsyth, 1980; Forsyth & Pope, 1984). First introduced by Forsyth (1980), ethical ideology was categorized into idealism and relativism (Schlenker & Forsyth, 1977). Results found that people oriented by idealism were more likely to find ethically questionable practices unethical and unacceptable than were individuals oriented with high relativism. Although the relationship between ethical ideology and ethical judgment has been extensively replicated and tested, empirical findings regarding this relationship, mostly the relationship between relativism and ethical judgment, are still

inconclusive and partially supported (Singh, Vitell, Al-Khatib, & Clark III, 2007; Steenhaut & Van Kenhove, 2006). Surprisingly, until now, little effort has been devoted to providing explanations for the inconsistent findings and insignificant results. Whether there is a boundary condition for the function of the relationship between relativism and ethical judgment is still far from clear. Therefore, the current study aims to fill this knowledge gap by exploring the boundary condition for the impact of relativism on ethical judgment.

Individual personality traits have long been believed to play important roles in consumer ethical decision making (Hunt & Vitell, 1993). However, how individual personalities influence consumer ethical decision making is rarely explored. As suggested by the conceptual model of Hunt and Vitell (1993) and the empirical evidence by Steenhaut and Van Kenhove (2006), individuals' personality traits or personal values determine ethical ideologies, which in turn, influence ethical judgments or ethical beliefs. By contrast, other researchers (Aaker & Lee, 2001; Zhou & Pham, 2004) suggested that personalities may affect personal judgments directly; a finding supported by some empirical studies (De Bock & Van Kenhove, 2010; Douglas, Davidson, & Schwartz, 2001; Finegan, 1994; Fritzsche, 1995; Rallapalli, Vitell, Weibe, & Barnes, 1994). Therefore, the exact role of personalities in the consumer ethical decision making process is inconclusive leaving a research gap to be filled. To this end, the present paper aims to reconcile the findings regarding the exact role of personalities in consumer ethical decision making.

## **1.2 Research Questions**

After identifying the research gaps, three research questions are proposed:

To begin, how do the two distinct dimensions of regulatory focus (prevention focus versus promotion focus) differentially relate to the two dichotomies of ethical ideology (idealism versus relativism)?

Second, does ethical ideology determine ethical judgment and whether idealism will have a positive influence on ethical judgment, whereas relativism will have a negative impact on ethical judgment?

Third, is the negative impact of relativism on ethical judgment moderated by some factors (i.e. ATSCI in this study)?

Lastly, is ethical judgment positively related to the ethical intention of a consumer?

## **1.3 Research Objectives**

The most important objective of the present study is to provide and validate a new theoretical model accounting for the consumer ethical decision making process. Although many theoretical models were proposed to uncover the process of ethical decision making, almost all of them were developed and validated in organizational contexts (Ferrell, et al., 1989; Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Jones, 1991), only a few were designed specifically for the consumer ethical decision making (outside an organizational setting). The current research aims to provide a

new conceptual model of consumer ethical decision making in two ways, each of which will bridge the research gaps identified in the previous section.

First, this study intends to introduce regulatory focus into the consumer ethics study to examine the role of individual regulatory focus in consumer ethical decision making. The introduction of this concept will allow for the exploration and analysis of the differential relationships between the two dimensions of regulatory focus and ethical ideology respectively. The present study builds upon the extant literature by hypothesizing that the two basic dimensions of regulatory focus (prevention focus versus promotion focus) conceptually correspond to the two independent categories of ethical ideology (idealism versus relativism) under scrutiny. This observation deserves additional academic attention in order to identify the underlying differential relationships, in particular the relationships among prevention focus, promotion focus, idealism, as well as relativism. The relationship between regulatory focus and ethical ideology is unknown to us and no study has been conducted to explore it, though the importance of this potential relationship is significant to consumer ethics research. Furthermore, by introducing regulatory focus into the consumer ethical decision making framework, the present study aim to reconcile prior inconsistent findings regarding the relationships among personality, specifically regulatory focus, ethical ideology, and ethical judgment. In particular, this study intends to empirically test whether regulatory focus functions as the antecedent of individual ethical ideology, which in turn, influences ethical judgment.

Second, the present study intends to identify the boundary condition for the function of the relationship between ethical ideology and ethical judgment, in

particular, the relationship between relativism and ethical judgment. Prior studies regarding the negative impact of relativism on ethical judgment are inconsistent and insufficiently supported (Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). To this end, the current study aims to reconcile previous inconclusive results by introducing a personality construct and paying attention to social comparison information as a moderator of the relationship between relativism and ethical judgment.

In addition to the two aforementioned research objectives, the current study also aims to extend the influence of ethical ideology from ethical judgment to ethical intention. Specifically, the present research intends to examine whether idealism has a positive impact on ethical judgment while relativism has a negative influence on ethical judgment, which in turn, positively relates to ethical intention of consumers.

## **1.4 Structure of Dissertation**

A total of seven chapters are included in this dissertation.

Chapter 1: the current chapter.

Chapter 2: reviews the work that has been done in this field; clearly defines the key concepts of this study, as well as identifies the limitations and research gaps in prior research.

Chapter 3: presents the research model in this study and articulates the rationale for each proposed hypothesis.

Chapter 4: presents the research methodologies in this study, including sample and site selection, the process of data collection, and the process of measurement instruments development.

Chapter 5: presents the empirical results of the questionnaire survey in main study, including descriptive data, reliability and validity testing, as well as hypotheses testing.

Chapter 6: discusses the achievements of research objectives and research hypotheses. Theoretical and practical implications are also discussed in this chapter.

Chapter 7: presents a summary of the whole study. Limitations and corresponding suggestions for future research are discussed.

## **CHAPTER 2 LITERATURE REVIEW**

This chapter presents a comprehensive review of the existing literature relevant to the present study. First, definitions of the key constructs in this study are provided. Next, the knowledge gaps identified in Chapter 1 are further discussed, as well as how these gaps will be filled.

### **2.1 Consumer Ethics**

The study of ethics, which is rooted in philosophical, cultural, and religious beliefs, is divided into two categories: the normative perspective and the positive perspective (Hunt & Vitell, 1986; Tsalikis & Fritzsche, 1989). A normative perspective on ethics research prescribes what individuals in ethical dilemmas ought to do, while the study of ethics from a positive perspective aims to describe and explain how individuals act in situations with ethical elements involved (Fukukawa, 2003; Tsalikis & Fritzsche, 1989).

Ethics is not simply a matter of legality or morality, instead, it is a series of perceptions of "rightness" or "wrongness" that occur in our daily situations (Ferrell & Weaver, 1978). Beauchamp and Bowie (1983) clearly define ethics as an "inquiry into theories of what is good and evil and into what is right and wrong, and thus is inquiry into what we ought and ought not to do." In the marketing ethics literature, the terms ethics is usually used interchangeably with morals. Strictly speaking, they are two distinct concepts. Whereas morals or morality refers to moral conduct itself,

ethics represents the study of morality or the codes for guidance (Tsalikis & Fritzsche, 1989). Taylor (1975) also points out that while ethics is the “inquiry into the nature and grounds of morality,” morality refers to “moral judgments, standards, and rules of conduct.” However, since most researchers use these two terms interchangeably in literature and many important concepts such as consumer ethics, moral philosophies, and ethical judgment are well established and well accepted, ethics/morals/morality or moral/ethical are used interchangeably in this study.

Concerns for ethical issues in the market place have grown dramatically over the past few decades (Singhapakdi, et al., 1996; Tsalikis & Fritzsche, 1989). The increase in attention paid to marketing ethics is probably due to the fact that the market place, or the interaction between buyers and sellers, is where many ethical problems in business emerge (Vitell, et al., 2001; Laczniak, 1981). As discussed above, research on marketing ethics can be divided into two streams: marketer ethics and consumer ethics. The present study intends to investigate ethical decision making in marketing with a special focus on consumer ethics.

Consumer behavior is defined as the acquisition, use, and disposition of goods, services, ideas, events, or any other entities that can be obtained, used, or discarded in ways that potentially offer value to the ultimate consumers (Holbrook, 1987). All three of these consumption processes, including acquisition, usage, and disposition are susceptible to ethical controversy. In the consumer ethics literature, two types of consumer behaviors were most frequently investigated: shoplifting and green behaviors (Vitell, et al., 2001; Vitell & Muncy, 1992). Shoplifting is the most intensively studied practice in the realm of consumer ethics (Fullerton, et al., 1996;

Vitell, et al., 2001; Vitell & Muncy, 1992). Another frequently examined consumer behavior is consumers' environmentally friendly practices (Vitell, et al., 2001; Vitell & Muncy, 1992). In the research on the green practices of consumers, the majority of studies have focused on the examination of consumer behaviors regarding usage, such as household energy conservation (Haldeman, Peters, & Tripple, 1987; Vitell, et al., 2001); or disposal, such as recycling (Bagozzi & Dabholkar, 1994; Iyer & Kashyap, 2007). Prior studies on consumers' green behaviors were concentrated on the categories of usage and disposal of products, while another important component of consumption procedure, namely, acquisition of products (Holbrook, 1987), received little attention. Furthermore, although consumers' environmental behaviors are categorized in the realm of consumer ethics, few studies were conducted to investigate consumers' environmentally supportive practices from an ethical perspective (Chan, et al., 2008; Vitell & Muncy, 1992). Therefore, the present study aims to apply consumer ethics theories to consumers' green behaviors, in particular, BYOB practice, which occurs at the acquisition stage. Thus, the current research bridges the knowledge gaps in previous research and enriches our understanding of consumer ethics.

### **2.1.1 Consumers' Green Behaviors**

Consumers' green behaviors, or consumers' environmentally supportive behaviors, have rarely been considered to be ethics related. Yet, after a thorough review of the

consumer ethics literature, it is concluded that consumers' green practices are ethically related and research on consumers' ecologically friendly conduct is one of the major streams in consumer ethics research (Vitell & Muncy, 1992). Ethical decisions are behaviors which are both legally and ethically approved by most people involved (Jones, 1991). Therefore, green behaviors such as recycling, purchasing green products, and BYOB practice are ethical decisions by definition since these practices are legally and morally right to most people and the larger community.

Indeed, consumers' environmentally supportive behaviors are considered to be innately ethics related by some scholars in the academic field. These researchers argue that consumers' ecological decisions are morally motivated and their green behaviors actually reflect their ethical concern for the perceived socio-environmental impacts of their behaviors (Black, et al., 1985; Caruana, 2007; Seyfang, 2006; Thøgersen, 1999). Therefore, the moral concerns of consumers for the environment affect their environmental decision making. Consumers with strong moral commitments to the environment are more likely to perform green behaviors than consumers with little commitment to the environment (Thøgersen, 1999). Despite the fact that the innate ethicality of green behaviors has been identified by researchers, almost all studies on consumers' ecologically-friendly practices are conducted from a general socio-psychological perspective (Gill, Crosby, & Taylor, 1986; Kalafatis, et al., 1999), where there have been few attempts to apply ethical theories to investigate consumers' environmentally supportive behaviors (Chan, et al., 2008). To bridge this knowledge gap, the present study intends to examine green consumer decision

making from an ethical perspective. It is believed that this approach will provide novel as well as useful insights into the understanding of consumer ethics.

### **2.1.2 Consumer Ethical Decision Making Models**

In the marketing ethics literature, two perspectives have been adopted by researchers to define and categorize marketing ethics. The first perspective is the normative perspective and the second is the positive approach. The former is grounded in philosophy which aims to provide ethical guidelines for the marketplace. In other words, marketing ethics research from a normative perspective teaches people what they ought to do. By contrast, the latter is rooted in a psychological approach which is used to describe the ethical decision making process that occurs in the marketplace. This perspective is used to analyze how moral agents actually react when encountering ethical dilemmas (Fukukawa, 2003; Tsalikis & Fritzsche, 1989). The majority of studies on consumer ethics were conducted from normative perspective, aiming to provide normative guidelines for consumers about what they should do and what were morally correct decisions when facing certain ethically controversial situations.

In the marketing ethics research, except for the concrete ethical principles regarding consumers' ethical behaviors, parsimonious ethical theories such as moral philosophy and ethical ideology (grounded in philosophical and historical perspectives) prescribe how ethical questions should be answered (Schlenker &

Forsyth, 1977). When making ethical decisions, individuals apply ethical principles based on their personal ethical ideologies (Singhapakdi, et al., 1999). Since ethical ideology is one of the core concepts in this study, it will be elaborated in details in the following sections. Although this study brings normative ethical theory, in particular ethical ideology, into the theoretical model, the major objective of the current research in order to examine consumer ethics from a positive perspective and develop a consumer ethical decision making model to depict the process of the consumer ethical decision making when faced with ethical dilemmas (Fukukawa, 2003; Tsalikis & Fritzsche, 1989).

The past few decades have seen the development of numerous ethical decision making models in the marketing ethics literature. The most comprehensive ones were developed by Ferrell and Gresham (1985), Hunt and Vitell (1986, 1993), and Ferrell, Gresham and Fraedrich (1989). All three models regard ethical decision making as a rational process which contains several major steps or functions (Bommer, Gratto, Gravander, & Tuttle, 1987). Ferrell and Gresham (1985) offer a contingent multistage model for individual ethical decision making. Hunt and Vitell's (1986, 1993) model incorporates the concept of moral philosophy (also referred to ethical ideology in this study) into individual ethical decision making processes in which ethical judgment is required. Ferrell et al.'s (1989) model is a synthesis model which integrates the components from the models by Ferrell and Gresham (1985) and Hunt and Vitell (1986, 1993). These three models were developed to conceptualize the ethical decision making process in an organizational context. Only the Hunt and Vitell (1993) model can be applied to consumer ethical decision making context by deleting some

organizational environmental factors. Thus, a conceptual model specifically designed for the consumer decision making is urgently required.

Jones (1991) developed a conceptual model for the individual ethical decision making process, which incorporates previous important models on marketing ethics into a comprehensive one containing four stages: recognition of the ethical element, making an ethical judgment, building an ethical intention, and carrying out an ethical behavior. Furthermore, unlike other prevalent ethical decision making models, which only can be applied in an organizational environment, this model is applicable to the consumer ethical decision making process. The weakness of Jones's (1991) model, however, is that it neglects individual difference during the ethical decision making process, which might be attributable to differences in personalities, as well as in ethical value systems. To this end, the present study aims to develop a conceptual model for consumer ethical decision making by taking individual personality, in particular regulatory focus, and individual ethical ideology into account.

## **2.2 Regulatory Focus**

Regulatory focus can function as either a chronic personality or a temporarily psychological state (Higgins, 1997, 1998). The introduction of regulatory focus in the present study is to validate Hunt-Vitell's (1993) model for the purpose of examining the role of personality in the consumer ethical decision making process. In particular, this study investigates whether individuals' personalities determine their

ethical ideologies. Therefore, in the current study, regulatory focus is introduced and discussed as a trait, rather than a state. Regulatory focus is derived from the hedonic principle of seeking pleasure and avoiding pain, and it concerns how people maximize pleasure and minimize pain in different ways (Crowe & Higgins, 1997; Higgins, 1997). Regulatory focus is a system that underlies the hedonic principle, but different from the hedonic principle in its motivational consequences (Higgins, 1997). In regulatory focus, as one of the approach-avoidance principles, its critical feature is motivation; the intention to reduce the discrepancies between current states and desired end-states. In particular, while previous motivational models distinguish approaching desired end-states from avoiding undesirable end-states, regulatory focus identifies two additional types of desired end-states and two distinct ways in which they correspond to desired end-states (Higgins, 1997, 1998).

According to the regulatory focus theory, there are two distinct ways, namely promotion focus and prevention focus, to move closer to desired goals (Crowe & Higgins, 1997; Higgins, 1997, 1998). These two regulatory focus systems are conceptually independent, and thus they are assumed to be able to coexist within a given people. It is possible that an individual is high in promotion focus or prevention focus only, or high or low in both (Pham & Higgins, 2005; Zhou & Pham, 2004). Individuals with high promotion focus are driven by strong needs for nurturance and growth. They are concerned with advancements, developments, and achievements. Highly promotion-focused people are sensitive to the presence or absence of positive outcomes and wish to accomplish hits and to avoid misses. In contrast, people with high prevention focus are motivated by strong needs for security and safety. They

emphasize duties, obligations, and responsibilities. Prevention-focused people are vigilant in the absence or presence of negative consequences and want to attain correct rejections and avoid errors of commission (Crowe & Higgins, 1997; Higgins, 1997, 1998).

### **2.2.1 Prevention Focus versus Promotion Focus**

Promotion focus and prevention focus can be distinguished by their corresponding determinants and outcomes. In regards to determinants, while promotion focus is induced by nurturance needs, strong ideals, and situations involving gain-nongain, prevention focus is motivated by security needs, strong *oughts*, and situations involving nonloss-loss. As for consequences, sensitivity to the presence or absence of positive outcomes, approaching match as strategic means, and eagerness to ensure hits and insure against misses are yielded by a promotion focus; whereas a prevention focus produces a sensitivity to the absence or presence of negative consequences, a strategic inclination to avoid mismatch, and a vigilance to ensure correct rejections and insure against mistake making (Higgins, 1997, 1998). In the following paragraphs, these two regulatory focuses will be elaborated with more details.

One of the basic assumptions of regulatory focus is that individual fundamental needs are satisfied differently. Some pertain to development, growth, and nourishment, while others are about security, safety, and protection (Brockner & Higgins, 2001; Higgins, 1997). Individuals approach pleasure and avoid pain through

self-regulation, but the ways in which they regulate themselves differ from nurturance needs to security needs. Hence, the regulatory focus theory proposes that strong needs for security, safety, and protection induce a prevention focus, whereas strong needs for nurturance, growth, and development elicit a promotion focus (Brockner & Higgins, 2001; Crowe & Higgins, 1997; Higgins, 1997).

According to the self-discrepancy theory (Higgins, 1987), individuals can have either a desired end-state or an undesired end-state as reference value to regulate their behaviors. The function of self-regulation is to reduce the discrepancy between the current state and desired end-state, as well as to magnify the distance between the present state and the undesired end-state. Carver and Scheier (1990) refer to the discrepancy-reducing system as an approach system and the discrepancy-amplifying system as an avoid system. The regulatory focus theory concentrates on the former system only. In the discrepancy-reducing system, an individual moves closer to the desired end-state. Within the discrepancy-reducing system, two kinds of desired self-guides are identified. The first is the ideal self-guide and the second is the *ought* self-guide; these correspond to the two types of discrepancies, the actual-ideal self-discrepancy and the actual-*ought* self-discrepancy (Carver & Scheier, 1990; Crowe & Higgins, 1997). According to the regulatory focus theory, people with a strong ideal self (hopes, wishes, and aspirations) differ from those with a strong *ought* self (duties, obligations, and responsibilities) in their self-regulation approaches. Ideal self-regulation induces a promotion focus while *ought* self-regulation elicits a prevention focus (Crowe & Higgins, 1997; Higgins, 1997, 1998). Individuals with a prevention

focus attempt to get close to *ought* selves, whereas people with a promotion focus are eager to obtain goals related to ideal selves (Brockner & Higgins, 2001).

Regulatory focus is not just an individual difference attribute; rather, it can also be induced temporarily by stimuli (Crowe & Higgins, 1997; Higgins, 1997, 1998). People with promotion focus are sensitive to the presence or absence of positive consequences. They experience pleasure with the presence of positive outcomes and pain with the absence of the positive consequences (Higgins, et al., 2001). In other words, situational congruence between actual self and ideal self represents the presence of positive outcomes, which lead people to experience the pleasure of gain. By contrast, discrepancy between actual self and ideal self indicates the absence of positive consequences which yields the pain of nongain. Individuals who are prevention focused are sensitive to the absence or presence of negative outcomes. They experience pleasure with the absence of negative outcomes and pain with the presence of negative results (Higgins, et al., 2001). Therefore, temporary congruence between actual self and *ought* self represents the absence of negative consequences. People under such congruency experience pleasure of nonloss. Conversely, discrepancy between actual self and *ought* self means the presence of negative outcomes which induces the pain of loss (Brockner & Higgins, 2001; Crowe & Higgins, 1997). Hence, regulatory focus is a concept broader than just an individual difference of prevention focus or promotion focus; it can also be elicited temporarily in momentary situations (Crowe & Higgins, 1997; Higgins, 1997, 1998). The consequences of promotion focus or prevention focus are the same regardless of whether they are chronic personality or situational states (Higgins, 1997, 1998). In

the present study, regulatory focus is employed to develop a conceptual model and is measured as a chronic dispositional attribute but is discussed as a situational factor in the practical implication.

There are two strategies for individuals to reduce the discrepancies to their desired goals: approaching matches and avoiding mismatches (Higgins, 1997, 1998; Liberman, Idson, Camacho, & Higgins, 1999). A study by Higgins and his colleagues (1994) suggests that people who are concerned with the presence or absence of positive outcomes are inclined to use approaching matches as the strategy toward achieving the ideal self, whereas individuals who are sensitive to the absence or presence of negative consequences tend to have a strategic inclination toward avoiding mismatches in achieving the *ought* self. Thus, it is proposed that promotion-focused people address advancements, growth, and accomplishments, and they are inclined to make progress by approaching matches which are represented by the presence of positive outcome. Conversely, prevention-focused individuals emphasize safety, security, and responsibility, and they tend to achieve desired goals by avoiding mismatches which are represented by the presence of negative outcomes (Crowe & Higgins, 1997; Higgins, 1997, 1998).

People with a promotion focus emphasize accomplishments and advancements. They progress to the desired end-state by approaching matches. Thus, their self-regulatory states should be eagerness (Crowe & Higgins, 1997; Higgins, et al., 1994; Liberman, et al., 1999; Shah, Higgins, & Friedman, 1998). Individuals in a state of eagerness wish to have successes and to avoid the loss of achievement (Crowe & Higgins, 1997; Higgins, 1997, 1998). In contrast, prevention-focused individuals are

sensitive to security and safety, and they achieve the desired end-states by avoiding mismatches. Hence, their self-regulatory states should be vigilance (Crowe & Higgins, 1997; Higgins, et al., 1994; Liberman, et al., 1999; Shah, et al., 1998). People in a state of vigilance try to avoid making mistakes. In summary, people who are prevention focused and those who are promotion focused differ not only in their strategic inclinations to desired end states, but also can be distinguished by their strategic tendencies to insure certain outcomes and insure against others (Higgins, 1997).

### **2.2.2 The Potential of Regulatory Focus in Consumer Ethics Research**

Personal characteristics have long been believed to play important roles in consumer ethical decision making (Ferrell & Gresham, 1985; Hunt & Vitell, 1986). For instance, according to Ferrell and Gresham's (1985) ethical decision-making model, individual ethical decision making is influenced by individual personality as well as other determinants. Hunt and Vitell (1993) also took individual personal characteristics into account when proposing a general theory of individual ethical decision making. Empirical studies also support the idea of personal traits having a key impact on individual ethical decision making (De Bock & Van Kenhove, 2010; Finegan, 1994; Rallapalli, et al., 1994; Singhapakdi & Vitell, 1993; Singhapakdi, et al., 1999; Steenhaut & Van Kenhove, 2006). These studies demonstrate that personal values or personalities affect individual ethical decision making by influencing either

individual ethical ideologies (Singhapakdi & Vitell, 1993; Steenhaut & Van Kenhove, 2006) or personal ethical judgments (De Bock & Van Kenhove, 2010; Finegan, 1994; Rallapalli, et al., 1994). For instance, Steenhaut and Van Kenhove's (2006) study found that individual personalities, in particular, conservation versus openness to change and self-enhancement versus self-transcendence, function as the determinants of individual ethical ideologies, which in turn, influence individual ethical judgments. In Rallapalli et al.'s (1994) study, ten personality variables were selected to test the relationship between individual personalities and consumers' ethical judgments with the Consumer Ethics Scale. A recent study (De Bock & Van Kenhove, 2010) also lent support to the prediction that regulatory focus, as a chronic personality, exerted influence on the individual ethical decision making process. In particular, people with a prevention focus were less tolerant to unethical behaviors than were individuals with a promotion focus. In other words, prevention-focused consumers were more likely to evaluate the unethical consumer practice as wrong and unacceptable than were promotion-focused consumers.

Regulatory focus theory concentrates on self-regulation toward desired end-states with the motivation of reducing the distances between current end-states and desired end-states (Higgins, 1997). The current study argues that regulatory focus, as a chronic personality factor, has strong potential in the field of consumer ethics. Previous research has suggested that individual personalities influence individual ethical decision making processes (Ferrell & Gresham, 1985). De Bock and Van Kenhove (2010) even made the first attempt to introduce regulatory focus into the consumer ethical decision making process and found that consumers' ethical

judgments were influenced by their chronic regulatory focus. Although findings of prior research regarding the role of personality in the consumer ethical decision making process are inconsistent, they support the theory that individual regulatory focus, as chronic personality, does have strong potential in the study of consumer ethics (Steenhaut & Van Kenhove, 2006; De Bock & Van Kenhove, 2010; Douglas, et al., 2001; Finegan, 1994; Fritzsche, 1995; Rallapalli, et al., 1994). The present study aims to examine the exact role of personal regulatory focus in the consumer ethical decision making process, which is expected to reconcile those inconsistent findings regarding personality in the consumer ethics research.

### **2.3 Ethical Ideology**

According to marketing ethics theories, individuals apply normative ethical guidelines according to their personal ethical ideologies when making ethical decisions (Singhapakdi, et al., 1999). It is argued that it is never possible to gain complete consensus on an individual ethical position, which is viewed as a personal difference in how ethical questions should be answered based on individual ethical value (Schlenker & Forsyth, 1977). There are always some discrepancies in moral judgments among different people since individuals adopt distinct personal ethical value systems (Steenhaut & Van Kenhove, 2006). Such individual variation in approaches to moral judgments is referred to as ethical ideology (Forsyth, 1980; Forsyth, 1992). Individual ethical ideology is an integrated conceptual system

comprised of ethical beliefs, attitudes, and values (Forsyth, 1992). In the literature, ethical ideology is used interchangeably with moral philosophy (Forsyth, 1980; Forsyth, 1992; Singh, et al., 2007; Singhapakdi, et al., 1999).

Based on the experimental results of Schlenker and Forsyth (1977), Forsyth (1980) classified individual ethical ideology into two basic categories: idealism and relativism. Idealism is the extent to which individual believes that the desirable outcomes can always be achieved with right actions, whereas relativism refers to the extent to which people reject universal ethical rules. These two dimensions of ethical ideology are conceptually independent. It is possible that people are high or low on either or both categories (Forsyth, 1980; Singhapakdi, et al., 1999). In the marketing ethics literature, the two distinct dimensions of ethical ideology, idealism and relativism, are frequently considered to be parallel to deontology and teleology respectively (Bateman & Valentine, 2010; Singh, et al., 2007; Steenhaut & Van Kenhove, 2006).

### **Idealism**

Idealism is the extent to which individuals believe that desirable consequences can always be achieved with morally right decisions. Individuals high in idealism are rule-oriented and are likely to stick to existing rules, conventions, and norms (Bateman & Valentine, 2010). People high in idealism believe in the existence of universal moral principles and that every person should conform to universal moral rules in order to make morally right decisions. Highly idealistic individuals hold that

harming others is always avoidable. In contrast, people with low idealism deem that a mixed outcome with both undesirable and desirable consequences can result (Forsyth, 1980; Forsyth, 1992).

### **Relativism**

Relativism refers to the extent to which people decline absolute moral principles (Forsyth, 1980). Individuals high in relativism make ethical decisions or judgments based on personal analyses of the consequences of the ethically related issues involved, specifically, the trade-off of between the perceived potential goodness and wrongness associated with the issues (Hunt & Vitell, 1986). People with a high relativistic orientation tend to make conclusions on ethically related issues according to their personal values or personal analysis rather than universal moral laws, whereas individuals with low relativism are more inclined to rely on absolute moral standards to guide their ethical thoughts (Forsyth, 1980; Forsyth & Pope, 1984).

## **2.4 Ethical Judgment and Ethical Intention**

Understanding consumers' beliefs or judgments toward ethically related issues which consumers encounter and experience is of importance since individuals' ethical judgments directly determine their ethical intentions, which, in turn, influence their final ethical behaviors (Jones, 1991). In the consumer ethics literature, ethical belief

and ethical judgment are usually used interchangeably (Rawwas, 1996; Vitell, 2003; Vitell, Lumpkin, & Rawwas, 1991). In order to keep consistency and avoid conceptual confusion, the present study employs the concept of ethical judgment, which is more commonly adopted than ethical belief in recent consumer ethics research (Chan, et al., 2008; Jones, 1991). By definition, an ethical judgment is a function of evaluation about what is morally correct based on an individual's ethical ideology (Jones, 1991; Singhapakdi, Vitell, & Leelakulthanit, 1994). Once an individual makes an ethical judgment about a given ethically related issue, he or she will continue the process by building up the ethical intention toward that issue involved. Ethical intention is the likelihood or possibility of action in any ethical dilemma (Jones, 1991; Hunt & Vitell, 1986). Usually, ethical intention is well accepted as the proxy to ethical behavior since intention predicts final behavior with high accuracy (Jones, 1991). Prior research on consumer ethics focused on ethical judgment as a proxy to actual ethical behavior of consumers, whereas the consequences of ethical judgment received little attention (Vitell, 2003). To this end, the present study extends previous research by adding individuals' ethical behavioral intentions as the outcomes of ethical judgments since intention is deemed to be a better proxy to actual behavior than is judgment (Ajzen, 1991; Jones, 1991).

In the past two decades, research on consumer ethical judgment increased rapidly (Vitell, 2003). Studies on consumer moral judgment have concentrated on the examination of consumers' ethical judgments toward unethical or ethically questionable practices presented in the scenarios of the Consumer Ethics Scale (Muncy & Vitell, 1992), which was developed to measure the extent of individual

ethical judgment (Al-Khatib, Vitell, & Rawwas, 1997; Chan, Wong, & Leung, 1998; Chan, et al., 2008; Rawwas, 1996; Vitell, et al., 1991; Vitell & Muncy, 1992). Little research has examined consumers' ethical judgments toward a specific ethical dilemma, because of the reliance on pre-set scenarios. Therefore, the current study aims to investigate consumers' ethical judgment toward a specific consumer ethical practice, BYOB practice, which is supposed to assess consumers' ethical judgments in a more accurate manner than do the scenarios on the Consumer Ethics Scale.

## **2.5 Attention to Social Comparison Information**

The theory of self-monitoring proposes that individuals often try to influence the images that others form of them and regulate their self-presentation by tailoring their behaviors in accordance with situational cues to different extents (Snyder, 1974, 1979). The motivation and ability to manage or control individual self-presentation are required in order to achieve social appropriateness and to foster socially desirable images in others' eyes (Snyder, 1974, 1979). Self-monitoring can be traced back to the classic pragmatic theories of self which postulate that individuals can and do exercise control over their expressive behaviors (Snyder, 1979). The process of self-monitoring not only influences individual behavior or intention, but also affects personal world view or thought (Snyder, 1979).

Attention to social comparison information (ATSCI), identified by Lennox and Wolfe (1984), is derived from the self-monitoring theory. According to Lennox and

Wolfe (1984), ATSCI is a concept distinct from self-monitoring and should be treated as a single construct. While ATSCI significantly and positively relates to social anxiety, including neuroticism and fear of negative evaluation, self-monitoring is highly correlated with self-confidence during social interaction. Such a strong relationship between ATSCI and social anxiety makes it difficult to use ATSCI to contribute to an empirical definition of self-monitoring (Lennox & Wolfe, 1984).

According to the self-monitoring theory, individuals who are high in self-monitoring tend to be sensitive and attentive to social comparison information and use these social cues to guide their self-presentations (Snyder, 1974, 1979). Such attention to social appropriateness is motivated by the desire to avoid undesirable situations such as guilty feelings, negative evaluations, and social sanctions that might arise from social interactions (Bearden & Rose, 1990; Berkowitz, 1972). Individuals high in ATSCI tend to invest more cognitive time and effort in “reading” and understanding the situational cues of social appropriateness during social interaction than do consumers with low ATSCI (Snyder, 1979). They care about the reactions of others about them and are concerned with the nature of those reactions (Lennox & Wolfe, 1984). Compared to those who are high in ATSCI, people low in ATSCI are less motivated by concern for others’ reactions and are less sensitive to the normative cues during interpersonal interactions, thus their evaluations or attitude formation tend to depend on their true values (Snyder & DeBono, 1985; Snyder & Gangestad, 1986). Furthermore, behaviors including thoughts, attitudes, and intentions are more accurate reflections of personal values and dispositions of those low in ATSCI than are those high in ATSCI (Snyder, 1974; Snyder & Gangestad,

1986). It is believed that high ATSCI is associated more with situational cues than is low ATSCI, whereas low ATSCI relates more to individual dispositional traits and value system than does high ATSCI (Becherer & Richard, 1978; Snyder, 1974).

ATSCI is believed to be primarily normative in nature and is strongly related to susceptibility to interpersonal influence (Bearden, Netemeyer, & Teel, 1989). Such sensitivity to social comparison information is driven by the fear of negative evaluations from others (Bearden & Rose, 1990; Lennox & Wolfe, 1984). In the context of consumer behavior, the sources for consumers' social comparison information might come from any social interactions such as other consumers' behavioral cues, the explicit pronouncement of the appropriateness of certain actions by important referents, the social rewards or punishments that accompany such actions, as well as the attribution about others' reactions to their own actions (Bearden & Rose, 1990; Bobby & Burnkrant, 1977; Jolson, Anderson, & Leber, 1981; Miniard & Cohen, 1983). All of these situational cues will be detected and processed to different extents by individuals with different degrees of ATSCI.

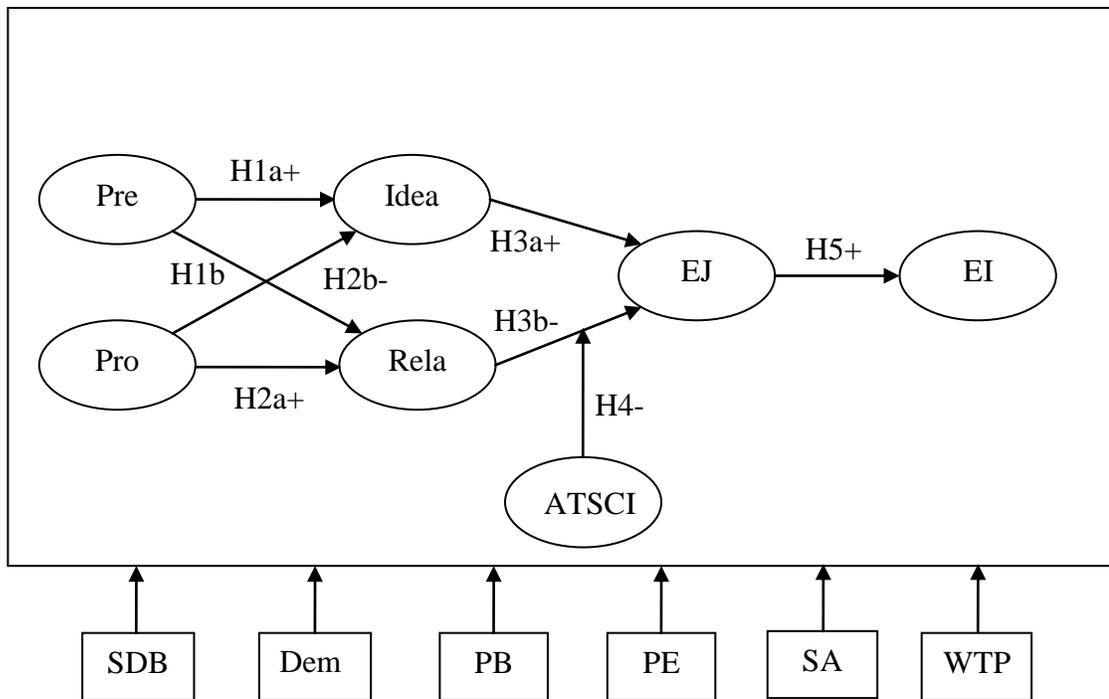
As self-monitoring, ATSCI has long been suggested as an important moderator of normative influences on individual behavioral intentions or actual behaviors (Bearden & Rose, 1990; Bobby & Burnkrant, 1977). Nevertheless, the present study argues that even the impact of individuals' philosophies on their judgments can be moderated by individual sensitivity to social comparison information. Since individuals high in ATSCI are sensitive to interpersonal or situational cues, the influences of their personalities and values on judgments or attitudes change in accordance with the intensified or attenuated attention to social appropriateness or desired public

appearances (Lennox & Wolfe, 1984; Snyder, 1974; Snyder & Gangestad, 1986). Theoretically, the moderating role of ATSCI occurs only when it is high since people with low ATSCI think and behave according to their true innate attitudes and values (Becherer & Richard, 1978; Snyder, 1974).

## CHAPTER 3 RESEARCH MODEL AND HYPOTHESES

This chapter presents the research model in this study. Figure 3.1 below is the conceptual model proposed in this study. This is followed by the rationales for each research hypothesis presented in the model.

**Figure 3.1 The Conceptual Model**



**NOTES:**

Pre=Prevention Focus; Pro=Promotion Focus; Idea=Idealism; Rela=Relativism; ATSCI=Attention to Social Comparison Information; Demo=Demographics, including age, gender, educational level, income level, marital status and religion; SDB=Social Desirability Bias; PB=Past Behavior; PE=Price Effect; SA=Social Appropriateness; WTP=Willing to Pay.

### **3.1 Relationship between Regulatory Focus and Ethical Ideology**

According to Allport's theory, personality development centers on the concept of the self (Ryckman, 2000). Regulatory focus, as a personal disposition, reflects characteristics such as eminent needs and motivations pervasive and dominant in people's lives, even from their childhood periods (Ryckman, 2000). In contrast, ethical ideology, which functions as a life philosophy, is developed from "a clear comprehension of life's purpose in terms of an intelligible theory" (Allport & Willard, 1961). Thus, philosophy of life, in particular, individual ethical ideology, forms only when individuals mature (Ryckman, 2000). This notion regarding the sequence of personality and philosophy is supported by the Hunt-Vitell model (1993) which proposes that individual personality is the antecedent of ethical ideology. Empirical studies, though few, also provide support to the theory that individual personality precedes personal philosophy (Steenhaut & Van Kenhove, 2006). In the current study, regulatory focus, a chronic personality, is predicted to determine individual ethical ideology, which is a personal life philosophy.

These two concepts share some conceptual associations. First, both ethical ideology and regulatory focus can be divided into two distinct dimensions in terms of openness (Forsyth, 1980; Higgins, 1997; Liberman, et al., 1999). For instance, ethical ideology can be categorized into relativism and idealism based on the extent to which people reject or accept universal moral principles (Forsyth, 1980). Correspondingly, regulatory focus can also be divided into promotion focus and prevention focus based on individual proneness to a risk-bias or conservation-bias (Crowe & Higgins, 1997;

Higgins, 1997; Liberman, et al., 1999). Second, both ethical ideology and regulatory focus are closely associated with individual ethical dispositions and both of them can be dichotomized in terms of individual difference in ethical dispositions (De Bock & Van Kenhove, 2010). As for ethical ideology, relativism and idealism are usually labeled as ‘less ethical’ and ‘more ethical’ respectively (Forsyth, 1980). Similarly, for regulatory focus, the promotion-focused person displays less ethical belief than do individuals with a prevention focus (De Bock & Van Kenhove, 2010). The present study maintains that prevention focus positively relates to idealism, but negatively associates with relativism. Promotion focus, by contrast, relates positively to relativism, but negatively to idealism. In the following sections, the theoretical underpinnings of the proposed relationship between regulatory focus and ethical ideology will be articulated in detail.

### **3.1.1 Prevention Focus and Ethical Ideology**

Individuals high in prevention focus are motivated by a strong need for security and protection, and they are guided to strong *oughts* in the form of obligations, responsibilities, and duties (Higgins, 1997, 1998). Such strong *oughts* function as minimum goals. Adherence to such minimal goals better ensures the absence of negative outcomes, whereas straying from such minimal goals increases the possibility of negative consequences (Higgins, 1997, 1998). Therefore, individuals with high prevention focus are sensitive to the absence or presence of negative

consequences (Crowe & Higgins, 1997; Higgins, 1997). The concern for *ought* self-regulation with negative outcomes induces avoidance as a strategic means of reducing mismatches to responsibilities and obligations (Higgins, et al., 1994). Thus, prevention-focused people are vigilant in their avoidance of mistake making and any commissions of error (Crowe & Higgins, 1997; Higgins, 1997, 1998). Such vigilance, according to Crowe and Higgins (1997) and Liberman et al. (1999) is associated with a conservative bias. People with high prevention focus are risk-averse, and they tend to adhere to existing rules and fixed patterns in order to avoid mistakes or failure (Higgins, 1998; Keller, Hurst, & Uskul, 2008). As a result, people with high prevention focus are inclined to follow conventions which prevent them from making mistakes. When facing ethically questionable consumer conduct, prevention-focused individuals are more likely to accept and follow universal ethical principles instead of being situational when making ethical judgment or ethical decisions.

Individuals with a high idealistic orientation believe that right outcomes can always be obtained through morally right actions (Forsyth, 1980; Forsyth, 1992). They are rule-oriented and tend to stick to existing rules, conventions, and norms (Bateman & Valentine, 2010). People high in idealism believe in universal moral principles, and they hold that every person should conform to these principles in order to make ethically right decisions. They reject changes and adhere to existing universal principles, and thus are associated with a conservative bias. Thus, individuals with higher prevention focus, who are associated with a conservative bias and tend to follow conventions in order to avoid mismatches and mistake making, are

more likely to yield an idealistic-oriented philosophy, which is characterized as an inclination to accept universal rules and reject situational morality.

In contrast, relativism refers to the extent to which people reject universal ethical principles when approaching ethical judgments (Forsyth, 1980). People with high relativism make ethical decisions or judgments based on the consequences of issues, specifically, the trade-off between the perceived potential goodness and possible wrongness associated with the actions (Hunt & Vitell, 1986). Individuals who are high in relativism are open to change; and idealism is associated with a tendency toward risk. As a result, they are more likely to violate moral rules if they believe the potential benefits outweigh the potential harms. Therefore, a prevention focus, which is represented as conservative-biased and defensive-oriented, is not likely to lead to a relativistic-oriented philosophy, which tends to reject fixed patterns for moral principles. On the basis of the above discussion, it is hypothesized that,

***H1: A consumer's prevention focus has (a) a positive effect on idealism but (b) a negative effect on relativism.***

### **3.1.2 Promotion Focus and Ethical Ideology**

People with a promotion focus, motivated by strong needs to nurturance, are guided strong *ideals* (e.g., aspirations, hopes and wishes) (Higgins, 1997, 1998). Such strong *ideals* function as maximal goals. Deviance from such goals represents the absence of

positive outcomes, whereas congruencies to such maximal goals mean the presence of positive results (Higgins, 1998). Therefore, individuals with high promotion focus are sensitive to the presence or absence of positive consequences (Crowe & Higgins, 1997; Higgins, 1997, 1998). The concern for *ideal* self-regulation through positive outcomes may trigger the adoption of approach as strategy to the achievement of their hopes and aspirations (Higgins, et al., 1994). Thus, promotion-focused individuals are eager to attain accomplishments and to avoid loss of opportunities to achievements (Higgins, 1997, 1998). Such eagerness, according to Higgins and his colleagues (Crowe & Higgins, 1997; Higgins, et al., 1994; Liberman, et al., 1999; Shah, et al., 1998) is associated with a risky bias. People with high promotion focus are open to change and very likely to take risk in order to capture every opportunity and accomplish a “hit” (Higgins, 1998). As a result, people with high promotion focus tend to reject fixed patterns which might inhibit them from capturing every opportunity to realize their goals. When encountering ethically questionable consumer practices, promotion-focused individuals tend to reject universal moral standards when making judgments. Instead, they are open to the evaluation of these practices without relying on a set of existing moral principles.

Relativism is the extent to which people reject universal moral rules when making ethical decisions or approaching ethical judgments (Forsyth, 1980). People with high relativism make ethical decisions or judgments based on the perceived consequences of the practices involved. In particular their evaluation is based on the tradeoff of between the potential benefits and possible harms accompanied with the practices (Hunt & Vitell, 1986). Therefore, people with high promotion focus, who are risky-

biased and situational when making ethical judgments, are prone to endorse a relativistic-oriented philosophy, which also tends to reject fixed patterns for moral principles.

Conversely, people with an idealistically ethical ideology believe that good consequences can always be achieved through morally right behaviors (Forsyth, 1980). They embrace universal moral codes and address the inherent rightness of conducts (Hunt & Vitell, 1986; Schlenker & Forsyth, 1977). Idealistic people are rule-oriented, and they tend to stick to ethical rules, conventions, and norms more so than individuals who are relativism oriented (Bateman & Valentine, 2010). They tend to believe that there are universal moral principles to guide human conduct, and people should conform to the universal ethical rules to achieve morally right decisions. Influenced by a strong sense of rule, people high in idealism reject changes and adhere to existing universal principles, thus idealistic individuals should be associated with a conservative bias. By contrast, people high in promotion focus value changes in order to capture every chance to make accomplishments (Crowe & Higgins, 1997; Higgins, 1997, 1998). They do not adhere to fixed rules or conventions out of fear of missing opportunities for achievement. Given the association between risky bias and promotion focus, individuals high in promotion focus would be less likely to be high in idealism, which embraces a conservative bias and high orientation to rule following. Based on the above, it is predicted that,

***H2: A consumer's promotion focus has (a) a positive effect on relativism but (b) a negative effect on idealism.***

### **3.2 Ethical Ideology and Ethical Judgment**

An ethical judgment is the evaluation of what is morally correct based on individual ethical ideology (Jones, 1991; Singhapakdi, et al., 1994). The earlier acknowledgement of the relationship between ethical ideology and ethical judgment can be traced back to Sharp (1898), who contended that the variation of ethical judgments toward an action resulted from individual differences in ethical value systems, which later were termed “ethical ideology” by Forsyth (1980). The relationship between ethical ideology and ethical judgment was first empirically examined by Schlenker and Forsyth (1977). Results showed that the participants’ perceptions on the risks and benefits created by the obedience experiment were highly varied. They also found that the interpersonal diversity in approaches to ethical judgments might be driven by two basic ethical ideologies, namely idealism and relativism, which together comprise ethical ideology (Forsyth, 1980). Later, Forsyth’s (1980) empirical research also lent support to the argument that individuals’ ethical judgments were influenced by their ethical ideologies. Specifically, people with high idealism tended to judge harshly perceived unethical behaviors, whereas relativism-oriented persons tended to be more tolerant of the unethical practices and thus rated these behaviors as ethical (Forsyth, 1980).

The effect of ethical ideology on individual ethical judgment was extensively examined in subsequent studies (Kleiser, et al., 2003; Singhapakdi, et al., 1995). Results of these studies support the argument that ethical ideology has an impact on individual ethical judgment. Specifically, idealism-oriented persons, who embrace

optimism and altruism, believe that a good consequence can always be achieved through ethical actions, and they are likely to evaluate ethically questionable behaviors as immoral and unacceptable. By contrast, people with relativistic philosophies tend to reject universal moral principles and adopt personal standards as they make ethical judgments. They are inclined to judge potentially unethical consumer conduct as ethical as well as acceptable. This study aims to specifically examine the relationship between consumers' ethical ideologies and their ethical judgments toward BYOB practice, an ethically controversial practice that happens in consumers' daily lives. Thus, it is hypothesized that,

*H3a: A consumer's idealism has a positive effect on his/her ethical judgment.*

*H3b: A consumer's relativism has a negative effect on his/her ethical judgment.*

### **3.3 Relationship between Ethical Judgment and Ethical Intention**

Once a consumer makes an ethical judgment, he or she continues the process by establishing an ethical intention toward the relevant issues (Jones, 1991). Intention is the likelihood or possibility for any specific choice (Hunt & Vitell, 1986), and it acts as the immediate antecedent of actual behavior, hence individual intention can predict one's actual behavior with high accuracy (Ajzen, 1991). The relationship between individual ethical judgments and ethical intentions is well established in the ethical decision making models used in the marketing ethics literature (Hunt & Vitell, 1986;

Jones, 1991). Numerous empirical studies also lend support to this postulated relationship between ethical judgment and ethical intention (Chan, et al., 2008; Singh, et al., 2007). Accordingly, in the present study, it is hypothesized that:

*H5: A consumer's ethical judgment has a positive effect on his/her ethical intention.*

### **3.4 The Moderating Role of Attention to Social Comparison Information**

Although previous researchers continually claimed that relativism negatively relates to individual ethical judgment, many empirical studies failed to support this relationship (Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). Compared to the consistent empirical support for the notion that idealism has a positive impact on ethical judgment, the findings regarding the negative effect of relativism on ethical judgment are rather insufficiently supported and inconsistent (Chan, et al., 2008; Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). For instance, in Steenhaut and Van Kenhove's (2006) study, the negative influence of relativism on ethical belief was only significant for one out of four scenarios of the Consumer Ethics Scale (Muncy & Vitell, 1992). Results of Chan et al.'s (2008) study found that both deontology and teleology, which parallel idealism and relativism respectively (Bateman & Valentine, 2010; Forsyth, 1992; Steenhaut & Van Kenhove, 2006), had positive effects on individuals' ethical judgments; and teleology even exerted a

stronger positive influence on ethical judgments than deontology. Most of the previous studies on the relationship between ethical ideology and ethical judgment were conducted with the Consumer Ethics Scale (Muncy & Vitell, 1992; Vitell, 2003). Respondents were required to indicate their ethical judgments on four scenarios involving illegal or ethically questionable or no harm actions (Muncy & Vitell, 1992; Vitell & Muncy, 1992).

Consumer behavior is the result of the interplay of dispositional and situational factors. Some researchers even believe that situations might exert greater influence on consumer behaviors than do personal characteristics or personalities (Becherer & Richard, 1978; Belk, 1974; Snyder & DeBono, 1985). Individual behavior is not only guided by personal standards, but also monitored by the social norms one endorses (Snyder & DeBono, 1985). The weak and inconsistent findings regarding the impact of relativistic orientation on individual ethical judgment might be contaminated by the contextual cues to social inappropriateness when consumers were asked to answer questions based on the scenarios of the Consumer Ethics Scale. Consumers may control their behaviors to different extents according to situational cues dictating social appropriateness based on the expressive behaviors they observe and use these cues as guidelines to monitor and manage their self-presentations and their own expressive behaviors (Snyder, 1974).

The present study only postulates the moderating effect of high attention to social comparison information (ATSCI) on the impact of individual relativism on ethical judgment. This is because people low in ATSCI tend to rely on their inner states of minds. They are less sensitive than people high in ATSCI to external situational cues

or to the social appropriateness implied by interpersonal interactions (Snyder, 1974). Therefore, people who are low in ATSCI are inclined to follow their inner philosophies or ethical ideologies when making ethical judgments, rather than affecting by situational cues to social appropriateness.

As discussed earlier, people who are driven by a relativistic orientation, tend to relate to relatively unethical dispositions and will judge a given ethical practice (BYOB practice in this study) less favorably in terms of degree of morality than do people who are motivated by idealism (Forsyth, 1980; Forsyth, 1992). However, the impact of individual relativistic philosophy on ethical judgment was weakly and inconsistently supported in empirical studies (Singh, et al., 2007; Steenhaut & Van Kenhove, 2006; Chan, et al., 2008). The present study maintains that the weak and contradictory impact of relativism on ethical judgment is a result of individual ATSCI. It is already known that ATSCI is positively related to social anxiety, especially the fear of negative evaluations from others (Lennox & Wolfe, 1984). At the same time, level of self-esteem is postulated to negatively correlate to social anxiety and sensitivity to the reactions of others. Therefore, individuals who are high in ATSCI are expected to be low in self-esteem (Bearden & Rose, 1990). People high in ATSCI are highly aware of negative evaluations from others, and they exhibit a strong need for social approval in order to enhance their self-esteem (Jones, 1973; Lennox & Wolfe, 1984). This study argues that in an ethically related consumer practice, individuals high in ATSCI are more susceptible to the situational cues of social appropriateness (e.g. act in an ethically and environmentally-conscious manner), than are consumers low in ATSCI.

In a BYOB context for instance, situational cues indicating the behaviors of an ethical consumer might come from any social or interpersonal interactions with the BYOB practices of others, public advertising on BYOB practice, praise from cashiers or, expected positive evaluations formed by other consumers when rejecting plastic bags provided by stores (Bearden & Rose, 1990; Calder & Burnkrant, 1977; Jolson, et al., 1981; Miniard & Cohen, 1983). Therefore, consumers high in ATSCI, even if they are oriented by relativism, are expected to be sensitive to the moral elements of BYOB practice. Such sensitivities lead to high perceived moral intensities (PMI) on BYOB practice. Moral intensity refers to the extent of an issue-related moral imperative in a given situation. Moral intensity is a multidimensional construct which includes the magnitude of consequences, social consensus, probability of effects, temporal immediacy, proximity, and concentration of effect (Jones, 1991). Therefore, consumers high in ATSCI are predicted to be highly sensitive to the moral cues with BYOB practice implied by others consumers' BYOB behaviors or any other normative information about BYOB practice. Such sensitivities to moral components lead to high perception of moral intensities (PMI), which in turn, result in favorable ethical judgments (Jones, 1991; Lennox & Wolfe, 1984). Therefore, although consumers high in relativistic orientation are expected to be less favorable in ethical judgments toward BYOB practice than are consumers low in relativism, when they are high in ATSCI, the negative relationship between relativism and ethical judgment will be weakened since high ATSCI has a strong and positive impact on PMI toward BYOB practice. Therefore, it is hypothesized that,

*H4: The negative effect of a consumer's relativism on ethical judgment is weakened when this consumer's attention to social comparison information is high.*

### **3.5 Control Variables**

In addition to the hypothesized relationships among the key concepts, some variables are included as control variables in the proposed conceptual model. First, demographic variables, including gender, age, education level, income level, marital status, and religion are included in this model since they are consistently identified as affecting consumers' green behaviors (Dietz, Stern, & Guagnano, 1998; Ling-Yee, 1997; Roberts, 1996; Shrum, McCarty, & Lowrey, 1995; Singhapakdi, et al., 1999; Straughan & Roberts, 1999). Past behaviors or habits in BYOB practices are also included since it is believed that this history influences consumers' ethical behavioral intentions (Singhapakdi, et al., 1999; Chan, et al., 2008). Furthermore, the economic importance of the environmental levy on plastic bags to customers, as well as how they perceive the social norms regarding BYOB practice might also influence consumers' intentions to bring their own shopping bags given the uniqueness of the context in this study. Therefore, price effect and perceived social appropriateness of BYOB practice are included in the proposed conceptual model to make this model context-specific. Finally, according to the tradition in the consumer ethics research, social desirability bias is also included in the research model to control its potential

effect on the self-reported survey in ethics research (Chan, et al., 2008; Hays, Hayashi, & Stewart, 1989).

## **CHAPTER 4 RESEARCH METHODOLOGY**

This chapter describes the research methodology used in this study. Details of research design, including site selection, process of data collection, representativeness of sample, as well as measurement development are provided. Before beginning the main study, a pilot study was conducted to test the reliability and validity of the measurement scales.

### **4.1 Site Selection**

Like many other regions, Hong Kong is suffering from the serious “White Pollution” problem caused by disposable plastic bags. Statistics show that disposable plastic bags are so indiscriminately used by Hong Kong consumers that nearly 8 billion plastic bags are consumed per year (HKEPD, 2007). The average consumption of plastic bags by Hong Kong consumers is 1,800 per year, compared with 300 in Ireland and Australia, and 900 in Taiwan. Taken together, all Hong Kong residents produce 33 million plastic bags each day, or 1,064 tons of plastic waste, which end up stacked in landfills (Yung, 2005). These disposable plastic bags not only burden precious landfill space, but also release toxic components, causing harm to both animals and human being (Hawkins, 2010). In order to cope with the severe environmental pollution that has arisen from the abuse of disposable plastic bags, the Hong Kong government introduced an environmental levy scheme on 7 July 2009. The levy scheme covers most supermarkets, convenience stores, and personal health

and beauty stores in Hong Kong. More than 2,800 retailers have registered in this levy scheme, representing a majority of retail stores in Hong Kong (Deng, 2009). These registered retailers are required to charge customers 50 cent HKD (around 0.064 USD) for each plastic bag instead of providing them to customers for free (An, 2009).

Given the environmental urgency and moral importance associated with BYOB practice, it is very important to understand the underlying mechanism of consumers' performance in BYOB practice. Since Hong Kong has just introduced the environmental levy on plastic bags, it is of academic significance to investigate how Hong Kong consumers have responded to the environmental levy on plastic bags and whether they are willing to bring their own shopping bags when visiting retailers. Therefore, this study examines the ethical decision making process of BYOB practice among Hong Kong consumers.

## **4.2 Pilot Study**

### **4.2.1 Data Collection**

To test the reliability and face validity of the adapted scales in this study, a pilot study with undergraduate students at the Hong Kong Polytechnic University was conducted. Another purpose of the pilot study was to identify the possible problems and difficulties in reading and understanding the questions from respondents. Feedback collected from the pilot study helped modify and improve the wording of

questionnaires, which finally helped improve the response quality of study. The data collected in the pilot study was not included in the main study analysis.

Furthermore, the questionnaires used in pilot study were initially developed in English and then translated into Chinese. Therefore, a pilot study is necessary to examine whether respondents have difficulties in reading questions and thus a reliability test is required. Back translation is one of the most commonly used techniques to achieve the maximum accuracy in translation work, and it was employed in the pilot study (Brislin, 1970). The purpose of back translation is to ensure the linguistic equivalence and common understanding in translation by contrasting the back-translated version with the original source of the text (Bhalla & Lin, 1987). Since both the pilot study and main study were conducted with Hong Kong consumers as samples, questionnaires were translated from English into traditional Chinese. The work of back translation was conducted by translators who were experts in both English and Cantonese. The questionnaire used in pilot study is shown in Appendix I.

The pilot study started in December 2010 and lasted for approximately three weeks. Questionnaires were delivered in six tutorial classes, each had approximately 20 students. All students involved in the pilot study were year one undergraduates. A total of 119 questionnaires were collected, among which, 7 questionnaires were abandoned for incompleteness, leaving 112 usable questionnaires. Among those, men accounted for 53.6% of the sample and the majority (83%) of respondents expressed no religious belief.

It is appropriate to adopt undergraduate students as samples in the pilot study for the following reasons. First, by college age, personality and value of undergraduate students are presumably well-established so they are mature enough when encountering ethical decision making (Detert, Treviño, & Sweitzer, 2008). Second, undergraduate students are avid consumers; shopping is everyday activity for most of them. So they often experience the dilemma of whether to bring their own shopping bags or to request plastic bags from cashiers. Third, university students represent the younger generation in society; their concerns for the environment are especially meaningful for the sustainable development of the environment and thus deserve academic attention. Last, but certainly not least, the sample is readily available in tutorial classes and convenient to access.

## **4.2.2 Measurement**

### **4.2.2.1 Regulatory Focus**

Individually chronic regulatory focus in this study was assessed by the Composite Regulatory Focus Scale (CRFS; Haws, Dholakia, & Bearden, 2010), which was developed based on comprehensive comparisons with four empirical studies among five of the most influential measurement scales for chronic regulatory focus , including the RFQ (Higgins, et al., 2001); Selves Questionnaire (Brockner, Paruchuri, Idson, & Higgins, 2002; Higgins, Bond, Klein, & Strauman, 1986); BIS/BAS Scales (Carver & White, 1994); SGSM (Shah, et al., 1998) and Lockwood scale (Lockwood,

Jordan, & Kunda, 2002). Criteria including theoretical coverage, internal consistency, homogeneity, stability, and predictive ability were employed when comparing these five scales. Finally, a composite regulatory scale was developed which was comprised of ten items, five for prevention focus and five for promotion focus. The Cronbach's alpha coefficient is .79 for promotion focus scale and .74 for prevention focus scale. A nine-point semantic differential scale was employed for the measurement of regulatory focus, where 1 equaled "not at all true of me" and 9 equaled "very true of me". A sample item for promotion focus was "When I see an opportunity for something I like, I get excited right away." For prevention focus, sample item was "I frequently think about how I can prevent failures in my life."

#### **4.2.2.2 Ethical Ideology**

The most influential, as well as widely used scale, for measuring ethical ideology is the Ethics Position Questionnaire (EPQ; Forsyth, 1980) and it is frequently adopted to measure personal ethical ideology (Singh, et al., 2007; Singhapakdi, et al., 1995). Thus, to capture consumer ethical ideology, the EPQ scale was employed in this study. The EPQ scale is comprised of twenty attitudinal statements, of which ten refer to idealism and the rest pertain to relativism based on the extent to which respondents accept or reject universal moral rules (Forsyth, 1980). Both scales have acceptable reliabilities, with Cronbach's alpha coefficient of .82 for idealism and .81 for relativism (Singhapakdi, et al., 1999). Respondents were asked to indicate their degree of agreement or disagreement on each statement based on their real attitudes.

A nine-point semantic differential scale was used ranging from 1=“completely disagree” to 9=“completely agree”. A sample item for idealism was “A person should make certain that their actions never intentionally harm another even to a small degree”. A sample item for relativism was “Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual”.

#### **4.2.2.3 Ethical Judgment**

To capture respondents’ ethical judgments on BYOB practice, the measurement of ethical judgment was adopted from Mayo and Marks (1990) and Dabholkar and Kellaris (1992). Respondents were asked the following question: “How do you judge the NOT BYOB practice, considering your values, and the desirability of the estimated outcomes with NOT BYOB?” Four seven-point scales ranging were used to capture the response to this question. All these items were semantic differential and the anchor points were unethical/ ethical, unacceptable/ acceptable/, wrong/ right/, and bad/ good, respectively.

#### **4.2.2.4 Ethical Intention**

The measurement items for ethical intention were adopted from Bagozzi (1981). A seven-point semantic differential scale was adopted. The three items used to measure ethical intention were: (1) All things considered, what are the chances you will choose to bring your own shopping bags to supermarkets in future, with 1= no chance

and 7=certain; (2) Please choose the option which best reflects your intention to bring your own shopping bags with regard to next shopping to supermarkets, with 1=definitely plan to bring and 7=definitely plan not to bring; and (3) If you were asked to become a regular user of your own shopping bags when visiting supermarkets, how frequently might you bring, with 1=never and 7=always.

#### **4.2.2.5 Attention to Social Comparison Information**

The scale to measure attention to social comparison information (ATSCI) adopted in this study is Lennox and Wolfe's (1984) 13-item ATSCI scale. The Cronbach's alpha coefficient for ATSCI is .83 and ATSCI is found to strongly correlate to other measures reflecting concern for the opinions of others: fear of negative evaluation from others ( $r = .64$ ), ability to modify self presentation ( $r = .40$ ), and cross-situational variability ( $r = .42$ ). In addition, the reliability was re-supported by Bearden and Rose's (1990) four studies and the average alpha value was .86. Furthermore, the strong correlations between ATSCI and several variables which reflect concerns for others' opinions render support to the validity of the ATSCI scale (Lennox & Wolfe, 1984). ATSCI was measured with using a seven-point semantic differential scale with endpoints anchored with "not at all true of me" to "very true of me." A sample item included: "When I am uncertain how to act in a social situation, I look to the behavior of others for cues".

### **4.2.3 Reliability and Validity**

Since the main study would be conducted with consumers who were either entering or leaving supermarkets in Hong Kong, questionnaires needed to be concise enough in order to improve response rate and to reduce response fatigue. Original scales of constructs were adapted in the pilot study. Questions for each construct were selected based on scale reliability and face validity analysis. Face validity is the extent to which the items are consistent with the definition of constructs and is evaluated by researchers (Hair, et al., 2010). It does not address to what the test actually measures, but whether the test appears superficially to measure (Anastasi, 1988). In the pilot study, face validity was conducted by two experts on the basis of the literature review. Reliability refers to the extent to which different items in the test measure the same construct (Nunnally, 1970). It reflects the internal consistency of the measurement instrument (Churchill, 1979, 1995). Cronbach's alpha test was used to test the reliability of the measurement scales in the pilot study. Reliability analysis was conducted through "scale if items deleted". As suggested by Nunnally (1994), the accepted cut point of alpha is .70 and the minimum value of .60 is considered acceptable for exploratory study (Hair, et al. 2010).

Table 4.1 presents the selected items for each construct after the reliability test of the pilot study and summarizes the results of reliability test for each construct. As shown in the Table 4.1, Cronbach's alpha coefficients for six out seven constructs fall into the range from .74 to .85, which indicates an acceptable to good internal consistency. Only the Cronbach's alpha coefficient of one construct, prevention focus,

was smaller than .70 ( $\alpha=.64$ ), but still above the minimum acceptable value (.60) in exploratory research (Hair, et al., 2010).

**TABLE 4.1 Summary of Scale Reliability Test in Pilot Study (N=112)**

<b>Codes</b>	<b>Items</b>	<b>Cronbach's Alpha</b>
<b>Promotion Focus (Haws, Dholakia, &amp; Bearden, 2010)</b>		<b>.85</b>
Pro1	I feel like I have made progress toward being successful in my life.	
Pro2	When I see an opportunity for something I like, I get excited right away.	
Pro3	I frequently imagine how I will achieve my hopes and aspirations.	
Pro4	I see myself as someone who is primarily striving to reach my "ideal self"—to fulfill my hopes, wishes, and aspirations.	
<b>Prevention Focus (Haws, Dholakia, &amp; Bearden, 2010)</b>		<b>.64</b>
Pre1	I usually obeyed rules and regulations that were established by my parents.	
Pre2	I worry about making mistakes.	
Pre3	I frequently think about how I can prevent failures in my life.	
Pre4	I see myself as someone who is primarily striving to become the self I "ought" to be—fulfill my duties, responsibilities and obligations.	
<b>Attention to Social Comparison Information (Lennox &amp; Wolfe, 1984)</b>		<b>.80</b>
ATSCI1	It is my feeling that if everyone else in a group is behaving in a certain manner, this must be the proper way to behave.	
ATSCI2	My behavior often depends on how I feel others wish me to behave.	
ATSCI3	If I am the least bit uncertain as to how to act in a social situation, I look to the behavior of others for cues.	
ATSCI4	I usually keep up with clothing style changes by watching what others wear.	
ATSCI5	When in a social situation, I tend not to follow the crowd, but instead behave in a manner that suits my particular mood at the time.	
<b>Relativism (Forsyth, 1980)</b>		<b>.74</b>
Rela1	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.	

Rela2	Different types of moralities cannot be compared as to “rightness”.	
Rela3	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.	
Rela4	Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments to others.	
Rela5	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.	
<b>Idealism (Forsyth, 1980)</b>		<b>.85</b>
Idea1	Risks to another should never be tolerated, irrespective of how small the risks might be.	
Idea2	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.	
Idea3	One should never psychologically or physically harm another person.	
Idea4	One should not perform an action which might in any way threaten the dignity and welfare of another individual.	
Idea5	If an action could harm an innocent other, then it should not be done.	
<b>Ethical Judgment (Mayo &amp; Marks,1990; Dabholkar &amp; Kellaris, 1992)</b>		<b>.84</b>
EJ1	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? - Unethical/Ethical	
EJ2	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? - Unacceptable/acceptable	
EJ3	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? - Wrong/Right	
EJ4	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? - Bad/Good	
<b>Ethical Intention (Bagozzi, 1981)</b>		<b>.77</b>
EI1	All things considered, what are the chances you will choose to bring your own shopping bags to supermarkets in future?	
EI2	Please choose the option which best reflects your intention to bring your own shopping bags with regard to next shopping to supermarkets.	
EI3	If you were asked to become a regular user to bring your own shopping bags to supermarkets, how frequently might you bring?	

## **4.3 Main Study**

### **4.3.1 Data Collection**

Data of main study was collected outside PARKnSHOP and Wellcome, two of the biggest supermarket chains in Hong Kong. Non-probability sampling was used to select respondents. A total of 350 questionnaires were collected. Of these, 243 were collected in Kowloon Peninsula (including Kowloon and New Territories), and 107 were collected in Hong Kong Island. The number of respondents surveyed in Kowloon Peninsula was larger than that of Hong Kong Island because the area of Kowloon Peninsula is much larger than that of Hong Kong Island (Lands Department). Also, the number of both PARKnSHOP and Wellcome stores at Kowloon Peninsula are greater than those of HK Island (PARKnSHOP.com; Wellcome.com). More respondents were surveyed outside PARKnSHOP than Wellcome due to the fact that generally the environment and locations of PARKnSHOP stores made the questionnaire interview easier than at Wellcome stores. Data collection began 17 February 2011 and ended on 8 April 2011. Consumers were intercepted outside supermarkets with a brief self-introduction and debriefing of the purpose of this survey. To improve response rate, a 20 HK dollar McDonald's voucher was promised as a token of appreciation upon completion of the questionnaire. A student identity card was also presented to each consumer approached to increase the credibility of this survey. Eligible respondents were identified by three screening questions: 1) Are you from Hong Kong? 2) Are you at

least 18 years old? 3) Do you usually shop in supermarkets? Those who answered “yes” to all three questions were qualified as respondents in this questionnaire survey.

Face-to-face questionnaire interview was used to collect data. Questionnaires were not self-administrated, rather, questions were read to respondents and their responses were recorded. This technique mitigated against the possibility of missing data. Anonymity was guaranteed to respondents to increase response rate and reduce question sensitivity. Each questionnaire was comprised of 44 questions, including personal characteristics, and divided into three parts. The first part inquired about BYOB practices, including ethical intention, ethical judgment and some context-specific control variables (past behavior, price effect, social appropriateness, and willingness to pay). The second part concerned the general behaviors of consumers, including the independent variable (regulatory focus and ethical ideology), moderator (attention to social comparison information) and one control variable (social desirability bias). The last part included demographic characteristics (gender, age, education, income, and religion) of respondents. Each questionnaire took respondents 15-20 minutes for completion. The entire questionnaire is shown in Appendix II.

#### **4.3.2 Representativeness of Sample**

Data collection was conducted on both weekends and weekdays, at all times of the day, to rule out any possible selection bias. Furthermore, the survey was conducted in two different regions of Hong Kong, Kowloon peninsula and Hong Kong Island. This

increased the likelihood that the sample would contain respondents from different income levels. To illustrate the representativeness of sample, the time and locations in which the survey was administrated were recorded (see Table 4.2).

A total of 914 consumers were approached and recorded with 350 consumers agreeing to participate. This led to a response rate of 38.3%. Details of the data collection process are presented in Table 4.2. Furthermore, details of the data collection process of both responding consumers and non-responding consumers were compared. As shown in Table 4.2, chi-square ( $\chi^2$ ) test showed that there was no significant difference between responding group and non-responding group in terms of supermarkets visited, locations of supermarkets, and the time the survey was administered.

**TABLE 4.2 Summary of Data Collection Process of Main Study (N=914)**

<b>Variables</b>	<b>Dimensions</b>	<b>Total</b>	<b>Response</b>	<b>Nonresponse</b>	<b><math>\chi^2</math> test</b>
<b>Sample Size</b>		<b>914</b>	<b>350</b>	<b>564</b>	
<b>Supermarkets</b>	PARKnSHOP	692 (75.7%)	253 (72.3%)	439 (77.8%)	.07
	Wellcome	222 (24.3%)	97 (27.7%)	125 (22.2%)	
<b>Locations</b>	Kowloon Peninsula	662 (72.4%)	243 (69.4%)	419 (74.3%)	.13
	Hong Kong Island	252 (27.6%)	107 (30.6%)	145 (25.7%)	
<b>Time</b>	Morning (9:00am~12:00pm)	237 (25.9%)	92 (26.3%)	145 (25.7%)	.59
	Afternoon (12:00pm~6:00pm)	247 (27.0%)	88 (25.1%)	159 (28.2%)	
	Evening (6:00pm~10:pm)	430 (47.0%)	170 (48.6%)	260 (46.1%)	

### **4.4.3 Sample Size**

According to Hair et al. (2010), the minimum sample size for a model with seven or fewer constructs is 150 when structural equation modeling (SEM) is to be used. If multigroup SEM analysis is to be employed, each group needs to meet the minimum sample size requirement. In the current study, there are seven key constructs in the proposed conceptual model. Multigroup SEM analysis was employed to test the moderating effect of attention to social comparison information (ATSCI) on the relationship between relativism and ethical judgment. ATSCI was divided into two groups in multiple group SEM analysis; one was the high ATSCI group and the other was the low ATSCI group. Therefore, the minimum sample size for this study was  $150 \times 2 = 300$ . To account for the possibility of missing data, 50 additional questionnaires were collected. Therefore, 350 respondents were surveyed in total.

### **4.3.4 Measurement**

#### **4.3.4.1 Promotion Focus**

The measurement scale of promotion focus is derived from the Composite Regulatory Focus Scale (CRFS; Haws, et al., 2010), which was developed based on comprehensive comparisons among the five most influential measurement scales for chronic regulatory focus among four empirical studies, including the RFQ (Higgins, et al., 2001), Selves Questionnaire (Brockner, et al., 2002; Higgins, et al., 1986), BIS/BAS Scales (Carver & White, 1994), SGSM (Shah, et al., 1998) and the

Lockwood Scale (Lockwood, et al., 2002). Four items for promotion focus were selected from the original scale based on the results of the reliability and validity tests in the pilot study. Respondents were asked to answer questions using nine-point semantic differential scales, ranging from 1 = “not at all true of me” to 9 = “very true of me.” A sample item for promotion focus was “I see myself as someone who is primarily striving to reach my ‘*ideal* self’—to fulfill my hopes, wishes, and aspirations.”

#### **4.3.4.2 Prevention Focus**

The measurement scale of prevention focus is drawn from the Composite Regulatory Focus Scale (CRFS; Haws, et al., 2010), developed using comprehensive comparisons among the five most extensively employed measurement scales for chronic regulatory focus in four empirical studies, including the RFQ (Higgins, et al., 2001); Selves Questionnaire (Brockner, et al., 2002; Higgins, et al., 1986); BIS/BAS Scales (Carver & White, 1994); SGSM (Shah, et al., 1998) and the Lockwood Scale (Lockwood, et al., 2002). Four items for prevention focus were selected from the original scale according to the reliability and validity test results in the pilot study. Respondents were requested to answer questions using a nine-point semantic differential scale, ranging from 1 = “not at all true of me” to 9 = “very true of me.” A sample item for prevention focus was “I see myself as someone who is primarily striving to become the self I ‘ought’ to be—fulfill my duties, responsibilities and obligations.”

#### **4.3.4.3 Idealism**

The measurement scale for idealism is drawn from the Ethics Position Questionnaire (EPQ; Forsyth, 1980), which is frequently adopted to measure personal ethical ideology (Singh, et al., 2007; Singhapakdi, et al., 1995). Five questions were selected from the original scale of idealism based on the reliability test and face validity analysis in the pilot study. A sample item of idealism was “Risks to another should never be tolerated, irrespective of how small the risks might be.” Respondents were requested to answer questions using a nine-point semantic differential scales ranging from 1 = “completely disagree” to 9 = “completely agree” (Forsyth, 1980).

#### **4.3.4.4 Relativism**

The measurement scale for relativism is also derived from the Ethics Position Questionnaire (EPQ; Forsyth, 1980). Five questions were chosen from the original scale of relativism based on the reliability and face validity analysis in the pilot study. A sample item used to measure relativism was “Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.” Participants answered these questions with a nine-point semantic differential scale ranging from 1 = “completely disagree” to 9 = “completely agree” (Forsyth, 1980).

#### **4.3.4.5 Ethical Judgment**

To capture how respondents judge BYOB practices, the measurement scale of ethical judgment was adapted from the studies of Mayo and Marks (1990) and Dabholkar and Kellaris (1992). A sample question included: “How will you judge the NOT BYOB practice, considering your values, and the desirability of the estimated outcomes with not BYOB?” Four, seven-point items ranging from 1 to 7 were used to capture the response to this question. All these items were semantic opposites with the anchor points of these items being ethical/ unethical, acceptable/ unacceptable, right/ wrong, and good/ bad, respectively.

#### **4.3.4.6 Ethical Intention**

The measurement items for ethical intention are adapted from the ethical intention scale of Bagozzi (1981), designed to measure individual behavioral intention to donate blood. A seven-point semantic differential scale was used in this study. Three items were used to measure consumers’ intentions to perform BYOB practice: (1) All things considered, what are the chances you will choose to bring your own shopping bags to supermarkets in future, with 1= no chance and 7=certain; (2) Please choose the option which best reflects your intention to bring your own shopping bags with regard to next shopping to supermarkets, with 1=definitely plan to bring to 7=definitely plan not to bring; (3) If you were asked to become a regular user of your own shopping bags when visiting supermarkets, how frequently might you bring, with 1=never to 7=always.

#### **4.3.4.7 Attention to Social Comparison Information**

The measurement scale of attention to social comparison information (ATSCI) adopted in this study is derived from Lennox and Wolfe's (1984) 13-item ATSCI scale. Based on the reliability and face validity analysis in the pilot study, five items were selected from the original scale for use in the main study. A seven-point semantic differential scale with endpoints anchored with "not at all true of me" to "very true of me" were used to capture the extent of ATSCI. A sample item was "I try to pay attention to the reactions of others to my behavior in order to avoid being out of place."

#### **4.3.4.8 Control Variables**

In the main study, the demographic characteristics of consumers, including gender, age, educational level, income level, marital status, and religion were controlled as suggested by prior studies (Dietz, et al., 1998; Ling-Yee, 1997; Roberts, 1996; Shrum, et al., 1995; Singhapakdi, et al., 1999; Straughan & Roberts, 1999). Gender was treated as a dummy variable with 0 denoting female and 1 denoting male. Age was measured with five categories, ranging from "eighteen to twenty-nine", "thirty to thirty-nine", "forty to forty-nine", "fifty to fifty-nine" to "sixty and above". Educational level was measured with seven categories according to the qualification framework in Hong Kong, ranging from form three, form five, form seven, associate bachelor, bachelor, master to doctor (Qualifications Framework, 2008). Income was measured with seven categories ranging from "5,000HKD or below", "5,001HKD to

10,000HKD”, “10,001HKD to 20,000HKD”, “20,001HKD to 30,000HKD”, “30,001HKD to 40,000HKD”, “40,001HKD to 50,000HKD”, to “50,0001HKD or above”. Marital status was measured by three categories, with 0 = “single”, 1 = “married” and 2 = “divorced”. Religion was also measured as a dummy variable with 0 denoting “no religious belief” and 1 denoting “has religious belief”.

Similar to the pilot study, past behavior of BYOB practice was controlled for given that individual history was likely to influence current and future actions (Singhapakdi, et al., 1999; Chan, et al., 2008). Respondents’ experience with BYOB practice (past behavior; PB) was measured by a single question: “How often did you bring your own shopping bags when visiting supermarkets on average?” Answers ranged from 1= “never” to 7=“always” in a seven-point scale. Furthermore, to control the possible price effect (PE) when consumers bring their own shopping bags, the economic importance of the 50 cents, which were charged when requesting plastic bags from cashiers, was measured. A single item was used to measure the price effect: “For you, how important do the 50 cents, which are charged when requesting plastic bags from cashiers?” Respondents were required to indicate their opinions on a seven-point scale ranging from 1=“Not at all important” to 7=“Very important.” Furthermore, willing to pay (WTP) for each requested plastic bag was controlled in the main study using the following question: “If you forget to bring your own shopping bags, how much are you willing to pay for each plastic bag at best?” Respondents were requested to answer this question by indicating the exact amount of money. In addition, it was assumed, based on the moderating role of attention to social comparison information, that consumers do perceive BYOB practice as

socially appropriate. Therefore, perceived social appropriateness of BYOB practice (SA) was measured in this study. A single item was used to measure this variable: “I perceive most others would consider my BYOB practice as...” Two seven-point semantic differential items were used to capture the SA of consumers with the endpoints anchored with appropriate/inappropriate and good/bad. Finally, to control the potential effect of social desirability bias (SDB) when using a self-reported questionnaire survey, the Social Desirability Response Scale (SDRS-5), a brief measurement version with five items, was used in this study (Hays, et al., 1989). A sample item from the SDRS-5 is: “There have been occasions when I took advantage of someone.” SDB was measured as a dummy variable with 0 = “True to me” and 1 = “False to me”.

A summary of measurement scales employed in the main study is provided in Table 4.3. Number of items, sources of scales, including authors, years, and journals in which they are published, are presented for reference.

**TABLE 4.3 Summary of Measurement Scales in Main Study**

<b>Codes</b>	<b>Scales</b>	<b>Sources</b>
	<b>Promotion Focus</b>	<b>Haws, Dholakia, &amp; Bearden (2010); Journal of Marketing Research</b>
Pro1	I feel like I have made progress toward being successful in my life.	
Pro2	When I see an opportunity for something I like, I get excited right away.	
Pro3	I frequently imagine how I will achieve my hopes and aspirations.	
Pro4	I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations.	
	<b>Prevention Focus</b>	<b>Haws, Dholakia, &amp; Bearden (2010); Journal of Marketing Research</b>
Pre1	I usually obeyed rules and regulations that were established by my parents.	
Pre2	I worry about making mistakes.	

Pre3	I frequently think about how I can prevent failures in my life.	
Pre4	I see myself as someone who is primarily striving to become the self I “ought” to be—fulfill my duties, responsibilities and obligations.	
<b>Attention to Social Comparison Information</b>		<b>Lennox and Wolfe (1984); Journal of Personality and Social Psychology</b>
ATSCI1	It is my feeling that if everyone else in a group is behaving in a certain manner, this must be the proper way to behave.	
ATSCI2	My behavior often depends on how I feel others wish me to behave.	
ATSCI3	If I am the least bit uncertain as to how to act in a social situation, I look to the behavior of others for cues.	
ATSCI4	I usually keep up with clothing style changes by watching what others wear.	
ATSCI5	When in a social situation, I tend not to follow the crowd, but instead behave in a manner that suits my particular mood at the time.	
<b>Relativism</b>		<b>Forsyth (1980); Journal of Personality and Social Psychology</b>
Rela1	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.	
Rela2	Different types of moralities cannot be compared as to “rightness”.	
Rela3	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.	
Rela4	Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments to others.	
Rela5	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.	
<b>Idealism</b>		<b>Forsyth (1980); Journal of Personality and Social Psychology</b>
Idea1	Risks to another should never be tolerated, irrespective of how small the risks might be.	
Idea2	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.	
Idea3	One should never psychologically or physically harm another person.	
Idea4	One should not perform an action which might in any way threaten the dignity and welfare of another individual.	
Idea5	If an action could harm an innocent other, then it should not be done.	
<b>Ethical Judgment</b>		<b>Mayo and Marks (1990); Journal of the Academy of Marketing Science; Dabholkar and Kellaris (1992); Journal of Business Research</b>
EJ1	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? -Unethical/Ethical	
EJ2	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? -Unacceptable/acceptable	
EJ3	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? -Wrong/Right	

EJ4	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? -Bad/Good	
	<b>Ethical Intention</b>	<b>Bagozzi (1981); Journal of Personality and Social Psychology</b>
EI1	All things considered, what are the chances you will choose to bring your own shopping bags to supermarkets in future?	
EI2	Please choose the option which best reflects your intention to bring your own shopping bags with regard to next shopping to supermarkets.	
EI3	If you were asked to become a regular user to bring your own shopping bags to supermarkets, how frequently might you bring?	

NOTE: For brevity, demographic variables (age, gender, education level, income level, marital status, and religion) and other control variables (social desirability bias, past behavior, price effect, social appropriateness, and willing to way) are omitted from the table. For detailed statements/items, please refer to section 4.3.4.8 for reference.

#### 4.4 Summary

This chapter presented the methodology employed in this study. A pilot study was conducted before data analysis and hypotheses were tested in the main study. Items for the main study were selected based on a reliability test and face validity analysis in the pilot study. Details regarding the development of measurement instruments in both the pilot and main study were discussed. Finally, information about the collection process utilized in the main study was provided.

## **CHAPTER 5 RESULTS**

The purpose of this chapter is to present the empirical results of the questionnaire survey in the main study. This chapter is composed of five parts. First, the characteristics of the sample are summarized. Second, it reports on the tested descriptive statistics and normality of the data distribution. Third, it discusses the testing of scale reliability, and construct validity assessment with confirmatory factor analysis (CFA). Then, all hypotheses are verified with structural equation modeling (SEM) using AMOS 17.0. To facilitate the robustness of findings, common methods variance (CMV) is examined and discussed.

### **5.1 Sample Characteristics**

Data was collected outside two supermarkets, PARKnSHOP and Wellcome, which are two of the biggest supermarket chains in Hong Kong. A total of 350 questionnaires were collected. All consumers were approached outside the entrance or exit of the supermarkets. To improve response rate, a 20 HK dollar McDonald's voucher was provided as a token of appreciation when the questionnaire was completed. A total of 914 consumers were approached, with 350 of them participating in the survey, yielding a response rate of 38.3%. Among these 350 questionnaires, 20 questionnaires were abandoned for incompleteness. Therefore, 330 questionnaires were useful for data analysis.

Table 5.1 summarizes the demographic information of the respondents. There were more women (62.4%) who participated than men (37.6%). This is reasonable since consumers who visit supermarkets are usually women, especially housewives. Among the 330 participants, the majority of the sample was between the ages of 18 and 59 (93.6%). Generally, the sample of this study is evenly distributed among the different age groups: 18 to 29 (28.5%), 30 to 39 (23.0%), 40 to 49 (22.4%) and 50 to 59 (19.7%). The majority (75.7%) of respondents are between the educational levels from form 3 to bachelor, with 21.5% of them from form 3 to form 5, 22.4% from form 5 to form 7, 7.9% hold an associate degree, and 23.9% have a bachelor's degree. For average monthly income, the majority (32.4%) of respondents earn between 10,000 HKD and 20,000 HKD. Respondents with an average monthly income of below 5,000 HKD and between 5,001 and 10,000 HKD comprised 49% of the sample. As to marital status, 173 respondents (52.4%) are married, 153 (45.8%) are single and the remaining (1.8%) are divorced. Finally, most of respondents (67%) are without any religion belief, with only 109 out of 330 (33%) respondents holding some religion beliefs.

**TABLE 5.1 Demographic Characteristics of Survey Respondents (N=330)**

<b>Demographics</b>	<b>Scale Labels</b>	<b>Frequency N=330</b>	<b>Percentage N=330</b>
<b>Gender</b>	Male	124	37.6%
	Female	206	62.4%
<b>Age</b>	18 to 29	94	28.5%
	30 to 39	76	23.0%
	40 to 49	74	22.4%
	50 to 59	65	19.7%

	60 or above	21	6.4%
<b>Education</b>	Below form 3	52	15.8%
	Form 3 to form 5	71	21.5%
	Form 5 to form 7	74	22.4%
	Associate degree	26	7.9%
	Bachelor's	79	23.9%
	Postgraduate	24	7.3%
	Doctorate	4	1.2%
<b>Average Income Per Month</b>	Below 5,000HKD	82	24.8%
	5,001HKD to 10,000HKD	80	24.2%
	10,001HKD to 20,000HKD	107	32.4%
	20,000HKD to 30,000HKD	30	9.1%
	30,001HKD to 40,000HKD	18	5.5%
	40,001HKD to 50,000HKD	4	1.2%
	50,001 or above	9	2.7%
<b>Religion</b>	With religion belief	221	33.0%
	No religion belief	109	67.0%
<b>Marital Status</b>	Married	173	52.4%
	Single	151	45.8%
	Divorced	6	1.8%

## 5.2 Descriptive Statistics

Before testing the proposed hypotheses, some descriptive statistics, including mean, standard deviation, and range of the key constructs in this study are presented. Table 5.2 summarizes the descriptive statistics of this study. As shown in Table 5.2, the means of key constructs, including prevention focus ( $m=6.591$ ), promotion focus ( $m=6.763$ ), idealism ( $m=7.674$ ), relativism ( $m=6.476$ ), ethical intention ( $m=5.860$ ), as well as ethical judgment ( $m=4.240$ ) are all slightly higher than middle value. In

contrast, average value of attention to social comparison information (m=3.670) is slightly smaller than middle value. For standard deviations, except social desirability bias, which was measured as a dummy variable, other constructs' standard deviations are all higher than 1.

**TABLE 5.2 Descriptive Statistics (N=330)**

<b>Constructs/Variables</b>	<b>Scale</b>	<b>minimum</b>	<b>maximum</b>	<b>mean</b>	<b>Standard deviation</b>
<b>Prevention Focus</b>	1 to 9	2.00	9.00	6.591	1.250
<b>Pre1</b>		1.00	9.00	6.59	1.687
<b>Pre2</b>		1.00	9.00	6.15	1.916
<b>Pre3</b>		1.00	9.00	6.46	1.581
<b>Pre4</b>		2.00	9.00	7.16	1.424
<b>Promotion Focus</b>	1 to 9	2.00	9.00	6.763	1.318
<b>Pro2</b>		2.00	9.00	6.92	1.475
<b>Pro3</b>		2.00	9.00	6.64	1.547
<b>Pro4</b>		1.00	9.00	6.73	1.572
<b>Idealism</b>	1 to 9	1.75	9.00	7.674	1.297
<b>Idea1</b>		1.00	9.00	7.44	1.746
<b>Idea2</b>		1.00	9.00	7.73	1.557
<b>Idea3</b>		2.00	9.00	7.70	1.400
<b>Idea4</b>		1.00	9.00	7.83	1.463
<b>Relativism</b>	1 to 9	1.60	9.00	6.476	1.446
<b>Rela1</b>		1.00	9.00	6.95	1.830
<b>Rela2</b>		1.00	9.00	6.74	1.693
<b>Rela3</b>		1.00	9.00	6.58	1.948
<b>Rela4</b>		1.00	9.00	6.00	2.084
<b>Rela5</b>		1.00	9.00	6.11	2.019
<b>Attention To Social Comparison Information</b>	1 to 7	1.00	6.75	3.670	1.227
<b>ATSCI2</b>		1.00	7.00	4.51	1.589
<b>ATSCI3</b>		1.00	7.00	3.75	1.653
<b>ATSCI4</b>		1.00	7.00	4.03	1.621
<b>ATSCI5</b>		1.00	7.00	3.58	1.672
<b>Ethical Judgment</b>	1 to 7	1.00	7.00	4.240	1.391
<b>EJ1</b>		1.00	7.00	4.21	1.500
<b>EJ2</b>		1.00	7.00	3.72	1.746

<b>EJ3</b>		1.00	7.00	4.40	1.624
<b>EJ4</b>		1.00	7.00	4.63	1.643
<b>Ethical Intention</b>	1 to 7	1.00	7.00	5.860	1.120
<b>EI1</b>		1.00	7.00	5.72	1.226
<b>EI2</b>		1.00	7.00	5.74	1.345
<b>EI3</b>		1.00	7.00	6.12	1.159
<b>Control Variables</b>					
<b>Social Desirability Bias</b>	0 and 1	0.00	1.00	0.514	0.236
<b>SDB1</b>		0.00	1.00	0.561	0.497
<b>SDB2</b>		0.00	1.00	0.576	0.495
<b>SDB3</b>		0.00	1.00	0.491	0.500
<b>SDB4</b>		0.00	1.00	0.482	0.500
<b>SDB5</b>		0.00	1.00	0.461	0.499
<b>Social Appropriateness</b>	1 to 7	2.00	7.00	6.013	1.121
<b>SA1</b>		2.00	7.00	5.97	1.157
<b>SA2</b>		1.00	7.00	6.06	1.194
<b>Past Behavior</b>	1 to 7	1.00	7.00	5.45	1.377
<b>Price Effect</b>	1 to 7	1.00	7.00	3.87	1.865
<b>Willing to Pay</b>		0.00	10.00	0.767	1.148

### 5.3 Normality of Data

In the present study, multivariate analysis techniques were adopted, including confirmatory factor analysis and structural equation modeling. Multivariate analysis techniques are susceptible to some underlying statistical assumptions. The violation of these assumptions would harm the application of a multivariate analysis, which in turn, influences the robustness of results and conclusions (Hair, et al., 2010). Normality of data is the most fundamental assumption of multivariate analysis and thus was assessed in this study.

Normality, which refers to the correspondence of the shape of data distribution of an individual metric variable to normal distribution, is the most fundamental assumption for multivariate analysis (Hair, et al. 2010). There are two indicators used to assess the normality of data, one is kurtosis and the other is skewness. SPSS 17.0 was used to examine the normality of data distribution. Results of skewness and kurtosis of individual variables in this study are shown in Table 5.3. According to Kline (2005), univariate normality is assumed when the skewness index is between -3.0 and 3.0 and the kurtosis index is between -8.0 and 8.0. Otherwise, the data is threatened by a problem of nonnormality. As shown by Table 5.3, indices of skewness and kurtosis of all individual variables fall into the acceptable range, which indicates that the data of this study does not have a nonnormality problem.

**TABLE 5.3 Summary of Univariate Normality Test (N=330)**

<b>Constructs</b>	<b>Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>Ethical Intention</b>	EI1	-.851	.592
	EI2	-1.203	1.301
	EI3	-1.647	3.099
<b>Ethical Judgment</b>	EJ1	-.296	-.072
	EJ2	.110	-.897
	EJ3	-.228	-.529
	EJ4	-.378	-.515
<b>Attention to Social Comparison Information</b>	ATSCI1	.107	-1.107
	ATSCI2	-.507	-.534
	ATSCI3	-.026	-.987
	ATSCI4	-.122	-.891
	ATSCI5	-.062	-1.089
<b>Idealism</b>	Idea1	-1.432	1.834
	Idea2	-1.605	2.521
	Idea3	-1.257	1.279

	Idea4	-1.591	2.785
	Idea5	-.422	-.536
<b>Relativism</b>	Rela1	-1.204	1.215
	Rela2	-.891	.596
	Rela3	-.740	-.117
	Rela4	-.537	-.532
	Rela5	-.661	-.139
<b>Promotion Focus</b>	Pro1	-.596	.357
	Pro2	-.732	.482
	Pro3	-.809	.669
	Pro4	-.930	.995
<b>Prevention Focus</b>	Pre1	-.808	.667
	Pre2	-.683	-.184
	Pre3	-.884	.937
	Pre4	-.958	.872
<b>Social Appropriateness</b>	SA1	-.846	-.403
	SA2	-1.164	.639
<b>Price Effect</b>	PE	.014	-1.049
<b>Past Behavior</b>	PB	-1.175	.907

#### 5.4 Scale Reliability and Validity Test

Although all measurement scales used in this study are derived from existing instruments, scale reliability and validity analysis are still necessary given that the measurement scales are adapted to meet the unique research setting of the current study. Validity and reliability are two different things. Whereas validity refers to the extent of agreement between operational definition and theoretical definition, reliability is the degree of internal consistency of measurement. Therefore, scale validity stands for the degree of closeness of the items representing the specific construct to be measured. Reliability tests whether the measurement is capable of producing similar results with different samples during the same period. Scale

validity, also referred to as construct validity, is composed of two components: convergent validity and discriminant validity (Fornell & Larcker, 1981). While convergent validity concerns whether the items of a given construct are measuring the same construct, discriminant validity represents the extent to which different measurement scales are distinct from each another (Malhotra, 2008). Validity and reliability testing is necessary to assess whether the instruments employed in this study are valid and reliable.

#### **5.4.1 Reliability Test**

In this study, reliability was evaluated in SPSS 17.0 with reliability analysis. Scale reliability was assessed with Cronbach's alpha coefficient. The generally accepted minimum value for Cronbach's alpha coefficient is .70 (Nunnally, 1994). A summary of the results of the reliability test is shown in Table 5.4. As shown in Table 5.4, the Cronbach's alpha coefficients of all constructs are above .70, which suggests that there is good internal consistency of the measurement in this study. However, as indicated by the "alpha if items deleted" results in the table, Cronbach's alpha coefficients of constructs will be improved when three items, namely Idealism5, Promotion Focus 1 and ATSCII1, are removed. However, they are retained for further assessment using confirmatory factory analysis (CFA) with AMOS, which aims to further assess construct reliability and construct validity.

**Table 5.4 Reliability Test with SPSS (N=330)**

<b>Constructs/Items</b>	<b>Item-Total Correlation</b>	<b>Alpha If Items Deleted</b>	<b>Cronbach's Alpha</b>
<b>Prevention Focus</b>			<b>.744</b>
Pre1	.486	.714	
Pre2	.523	.702	
Pre3	.689	.602	
Pre4	.483	.716	
<b>Promotion Focus</b>			<b>.818</b>
Pro1	.516	<b>.824</b>	
Pro2	.615	.782	
Pro3	.742	.720	
Pro4	.691	.746	
<b>Idealism</b>			<b>.843</b>
Idea1	.581	.832	
Idea2	.761	.782	
Idea3	.734	.794	
Idea4	.738	.791	
Idea5	.504	<b>.859</b>	
<b>Relativism</b>			<b>.809</b>
Rela1	.577	.778	
Rela2	.579	.779	
Rela3	.709	.736	
Rela4	.590	.775	
Rela5	.538	.791	
<b>Ethical Judgment</b>			<b>.875</b>
EJ1	.693	.856	
EJ2	.692	.859	
EJ3	.806	.811	
EJ4	.747	.834	
<b>Ethical Intention</b>			<b>.881</b>
EI1	.762	.839	
EI2	.829	.779	
EI3	.730	.868	
<b>Attention to Social Comparison Information</b>			<b>.731</b>
ATSCI1	.356	<b>.742</b>	
ATSCI2	.481	.689	
ATSCI3	.639	.626	
ATSCI4	.555	.661	
ATSCI5	.456	.698	

## **5.4.2 Confirmatory Factor Analysis**

Confirmatory factor analysis (CFA) was undertaken with AMOS 17.0 in this study to further evaluate the reliability and validity of the measurement scales. Seven key constructs--prevention focus, promotion focus, idealism, relativism, ethical judgment, ethical intention, and attention to social comparison information, as well as one control variable, social appropriateness--were assessed together in CFA. A path diagram was drawn to represent the linkages between observed variables and their corresponding constructs, along with the covariance among constructs. In CFA, only the path estimates (loadings) theoretically linking the measured variables and their intended constructs are calculated and provided in output. Relationships not specified are assumed to be zero. Therefore, there is no cross-loading in CFA (Hair, et al., 2010). To test the measurement theory, apart from overall fit of measurement, construct validity, including convergent validity and discriminant validity, was evaluated.

Convergent validity refers to the extent to which the indicators of a particular construct share a high proportion of variance with their intended constructs (Hair, et al. 2010). Standardized regression weights and average variance extracted (AVE) were used as indicators of convergent validity in CFA. Table 5.5 summarizes the results of the convergent validity of the measurement model of this study. Convergent validity was assessed using standardized regression weight estimates first. According to Hair et al. (2010), all regression weight estimates should be significant as minimum indicators of convergent validity. Furthermore, an acceptable convergent

validity should have a standardized estimate of regression weight greater than .50; an estimate greater than .70 indicates a perfectly good convergent validity. As shown in Table 5.5, standardized estimates for regression weights of six items, including Pre1, Pro2, Idea5, Rela5, ATSCI1, and ATSCI5, are below or only slightly above .50. This suggests that these six items should be considered for deletion from the measurement model since they share relatively low proportions with their corresponding constructs. However, according to the prior results shown in “alpha if items deleted” in reliability test (see Table 5.4), Pre1, Rela5 and ATSCI5, should be retained since the deletion of these items would harm the scale reliability. Therefore, using the results of the reliability test in SPSS and CFA results in AMOS together, three items, Pro1, Idea5 and ATSCI1, were removed to improve the internal consistency and convergent validity of the measurement model.

After deleting those three items, as shown in Table 5.5, except Rela5 and ATSCI5, the standardized regression weight estimates for all other indicators in this study are all greater than .50 and all standardized estimates of observed variables are significant at the level of .001. Although regression weights of Rela5 and ATSCI5 are smaller than .50, they do not appear to harm the overall model fit. Furthermore, results of the reliability test with SPSS do not suggest that they need to be deleted; thus, these two items have been retained.

Another indicator of convergent validity is AVE (average variance extracted). AVE value indicates the variance captured by each latent variable. AVE value of each latent variable is shown in Table 5.5. The AVE values of all constructs exceed or are just slightly lower than the desired value of .50, which is recommended by

Fornell et al. (1981). Therefore, the test of convergent validity is satisfactory. In summary, convergent validity of the measurement model in this study is provided.

Reliabilities of constructs were assessed again with CFA. Two indicators were used for assessment of the internal consistency of the measurement of constructs. One was composite reliability (CR) and the other was squared multiple correlation ( $R^2$ ). CR value is similar to Cronbach's alpha coefficient and refers to the internal consistency among the indicators of a given construct (Hatcher, 1994). As shown in Table 5.5, CR values for all constructs range from .724 to .901, which exceed the minimum threshold of .70, suggesting adequate reliability and internal consistency of the measured variables to their corresponding latent constructs (Hair, et al., 2010). Squared multiple correlation ( $R^2$ ) in SEM is the proportion of variance of a given observed variable that is explained by its underlying latent variables (Diamantopoulos, et al., 2000). It usually refers to item reliability and is used to assess the internal consistency among items of a given factor (Hair, et al., 2010). The  $R^2$  values with CFA of this study are not shown in Table 5.5. In the current study, except Pre1, Rela5 and ATSCI5, which have  $R^2$  values lower than .30, the  $R^2$  of other observed variables are all higher than .30. The moderate to high (ranging between .306 and .888)  $R^2$  values suggest that the observed variables are successful measurements of the latent variables in the model. The results of  $R^2$  imply that the latent variables can explain 30.6%-88.8% of the variance on the observed variables in this study (Hair, et al., 2010). Taken together, the results of composite reliability and squared multiple correlation suggest adequate reliabilities of measurements in the current study.

Overall fit, including some common indicators such as chi-square statistic ( $\chi^2$ ) and degrees of freedom ( $df$ ), comparative fit index (CFI), root mean square error of approximation (RMSEA), Tucker-Lewis coefficient (TLI), incremental fit index (IFI), and standardized root mean residual (SRMR) were also used to evaluate the fit of the measurement model in this study. While CFI is a recommended index of overall model fit, RMSEA indicates the achievement of a better model fit for each estimated coefficient (Gerbing & Anderson, 1993; Hair, et al., 2010). Traditionally, a satisfactory model fit is achieved when a CFI value equals to or is greater than .90, the greater the better; whereas a good fit of data is supported when RMSEA value equals to or is smaller than .50, the smaller the better (Browne & Cudeck, 1993; Hu & Bentler, 1999). However, Hair et al. (2010) suggests that the cutoff values used to demonstrate a good model fit should be discussed across different model situations, based on sample size and model complexity. Simpler models with smaller sample sizes should be subjected to more strict criteria for evaluation of model fit than are more complex models with larger samples. According to the guidelines of Hair et al. (2010), the cutoff values for RMSEA should be .07 or smaller with CFI of .90 or higher since the model of the current study has more than 30 variables (complex model) with a sample size exceeding 250 (large sample size). Chi-square value ( $\chi^2$ ) is expected to be nonsignificant. However, given that the  $\chi^2$  test is very sensitive to sample size, and a sample size of 200 is large enough to generate a statistically significant result, the ratio of chi-square value to degrees of freedom ( $\chi^2/df$ ) was

observed, regardless of the significance level. A  $\chi^2 /df$  value lower than 5 is usually considered to be acceptable and a ratio lower than 3 indicates a good model fit of data (Hair, et al., 2010).

TLI is the comparison of the normed chi-square values for the null model and the specified model. IFI, also known as Bollen's IFI, represents the incremental fit of a specific model as compared to a null model that assumes all observed variables are uncorrelated (Hair, et al., 2010; Bentler & Bonnett, 1980). Neither of them is normed and their values can fall below 0 or above 1. Traditionally, a TLI or IFI value approaching 1 indicates a good model fit and a value of TLI or IFI above .90 suggests an acceptable fit of model (Hu & Bentler, 1999). In addition, SRMR was checked and presented in this study. SRMR stands for the square root of the average of the covariance residuals, in other words, are the differences between the observed and predicted covariance matrix (Hair, et al., 2010). Usually, a SRMR value below .08 indicates a good model fit (Browne & Cudeck, 1993).

Table 5.5 summarizes the selected fit statistics from the CFA output. As shown in Table 5.5,  $\chi^2/df$  is 1.8181, which is much smaller than the threshold value of 3.0 for a good model fit. The CFI is .936, which is higher than the recommended value of satisfactory model fit (.90). The RMSEA is .053, which is smaller than the suggested cutoff value of good data fit (.070) given the model complexity and large sample size (Hair, et al., 2010). Both TLI and IFI are greater than .90, and the SRMR value is .054, which is smaller than the recommended cutoff value of .08 (Hu & Bentler,

1999; Browne & Cudeck, 1993). Taken together, these fit indices indicate a good fit of the measurement model in the current study.

**TABLE 5.5 Convergent Validity with CFA (N=330)**

<b>Codes</b>	<b>Items</b>	<b>Std. Estimate</b>	<b>CR</b>	<b>AVE</b>
<b>Promotion Focus</b>			<b>.836</b>	<b>.634</b>
Pro2	When I see an opportunity for something I like, I get excited right away.	.663		
Pro3	I frequently imagine how I will achieve my hopes and aspirations.	.911		
Pro4	I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations.	.795		
<b>Prevention Focus</b>			<b>.724</b>	<b>.467</b>
Pre1	I usually obeyed rules and regulations that were established by my parents.	.543		
Pre2	I worry about making mistakes.	.679		
Pre3	I frequently think about how I can prevent failures in my life.	.815		
Pre4	I see myself as someone who is primarily striving to become the self I “ought” to be—fulfill my duties, responsibilities and obligations.	.675		
<b>Relativism</b>			<b>.805</b>	<b>.582</b>
Rela1	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.	.703		
Rela2	Different types of moralities cannot be compared as to “rightness”.	.710		
Rela3	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.	.865		
Rela4	Moral standards are simply personal rules which indicate how a person should behave, and are not to be	.554		

	applied in making judgments to others.			
Rela5	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.	.482		
<b>Idealism</b>			<b>.819</b>	<b>.608</b>
Idea1	Risks to another should never be tolerated, irrespective of how small the risks might be.	.583		
Idea2	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.	.865		
Idea3	One should never psychologically or physically harm another person.	.857		
Idea4	One should not perform an action which might in any way threaten the dignity and welfare of another individual.	.855		
<b>Ethical Judgment</b>			<b>.808</b>	<b>.590</b>
EJ1	Considering the desirability of the outcomes and your own values, how would you judge the NOT BYOB practice? Unethical/Ethical	.659		
EJ2	Unacceptable/acceptable	.670		
EJ3	Wrong/Right	.942		
EJ4	Bad/Good	.856		
<b>Ethical Intention</b>			<b>.884</b>	<b>.719</b>
EI1	All things considered, what are the chances you will choose to bring your own shopping bags to supermarkets in future?	.816		
EI2	Please choose the option which best reflects your intention to bring your own shopping bags with regard to next shopping to supermarkets.	.942		
EI3	If you were asked to become a regular user to bring your own shopping bags to supermarkets, how frequently might you bring?	.777		
<b>Attention to Social Comparison Information</b>			<b>.731</b>	<b>.479</b>
ATSCI2	My behavior often depends on how I feel others wish me to behave.	.622		
ATSCI3	If I am the least bit uncertain as to how to act in a social situation, I look to the	.811		

	behavior of others for cues.			
ATSCI4	I usually keep up with clothing style changes by watching what others wear.	.626		
ATSCI5	When in a social situation, I tend not to follow the crowd, but instead behave in a manner that suits my particular mood at the time.	.464		
ATSCI2	My behavior often depends on how I feel others wish me to behave.	.622		

Fit Indices								
$\chi^2$	<i>df</i>	P value	$\chi^2/df$	CFI	RMSEA	TLI	IFI	SRMR
627.277	345	.000	1.819	.936	.050	.925	.937	.054

NOTES:

- a. Measurement model contains all 29 observed variables, including Pro2, Pro3, Pro4, Pre1, Pre2, Pre3, Pre4, Idea1, Idea2, Idea3, Idea4, Rela1, Rela2, Rela3, Rela4, Rela5, ATSCI2, ATSCI3, ATSCI4, ATSCI5, EJ1, EJ2, EJ3, EJ4, EI1, EI2, EI3, SA1, SA2, with 3 observed variables deleted, including Pro1, Idea5, ATSCI1
- b. Social appropriateness (SA) was validated with CFA but results were not shown in Table 5.5. Standardized regression weight estimate of SA1 is .897 and it is .914 for SA2. Composite reliability is .901 for SA and AVE value for SA is .820.
- c. In the current study, except Pre1, Rela5 and ATSCI5, which with  $R^2$  values lower than .30,  $R^2$  of all other observed variables are all high than .30, ranging from .306 to .888.
- d.  $\chi^2$  =chi-square; *df*=degree of freedom; CFI=Comparative Fit Index; RMESA=Root Mean Square Error of Approximation; TLI=Tucker-Lewis coefficient; IFI=Incremental Fit Index; SRMR=Standardized Root Mean Residual.
- e. Std. Estimate=standardized estimate for regression weight; CR=composite reliability; AVE=average variance-extracted.

Discriminant validity determines to what extent the given construct is really distinct from other constructs. Thus, it refers to the uniqueness of the measurement of constructs. There are several ways to evaluate discriminant validity. The most rigorous way is to compare the average variance-extracted (AVE) values for any two constructs with the square of correlation estimate between these two constructs (Fornell & Larcker, 1981). Discriminant validity is supported when the AVE value is greater than the square of the correlation estimate (Hair, et al., 2010). In AMOS,

variance-extracted value is the squared multiple correlation. Both the squared correlation of any two given constructs in the measurement model of this study and the average squared multiple correlation of all items of these two constructs were computed. Results of AVE (average squared multiple correlation) and results of squared correlation are shown in Table 5.6. Results reveal that all AVE values are greater than the corresponding square correlation between constructs in Table 5.6. Thus, discriminant validity of the measurement model in this study is supported (Fornell & Larcker, 1981).

**TABLE 5.6 Discriminant Validity: AVE and Squared Correlation Estimates**

	<b>EI</b>	<b>EJ</b>	<b>Idea</b>	<b>Rela</b>	<b>Pre</b>	<b>Pro</b>	<b>ATSCI</b>	<b>SA</b>
<b>EI</b>	<b>.719</b>	.036	.036	.006	.003	.049	.000	.059
<b>EJ</b>		<b>.590</b>	.016	-.003	.008	-.002	.009	.078
<b>Idea</b>			<b>.608</b>	.026	.097	.021	-.022	.011
<b>Rela</b>				<b>.582</b>	.002	.030	.003	.001
<b>Pre</b>					<b>.467</b>	.232	.032	.032
<b>Pro</b>						<b>.634</b>	.036	.025
<b>ATSCI</b>							<b>.479</b>	-.001
<b>SA</b>								<b>.820</b>

NOTES:

- a. N=330
- b. The diagonal elements (bold) are the AVEs (average variance-extracted); the off-diagonal elements are the squared correlations. Discriminant validity is supported when all AVE values are larger than the corresponding squared correlation estimates.
- c. Pre=Prevention Focus; Pro=Promotion Focus; Idea=Idealism; Rela=Relativism; EJ=Ethical Judgment; EI=Ethical Intention; ATSCI=Attention to Social Comparison Information; SA= Social Appropriateness.

## **5.5 Common Methods Variance**

Common methods bias, also named common methods variance (CMV), is a common problem in self-reported behavioral research. It usually happens when data for both dependent variables and independent variables are collected from the same respondents and at the same time (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Other factors such as social desirability, lengthy scale, and ambiguous wording of statements can also result in CMV (Lindell & Whitney, 2001; Spector, 2006; Malhotra, 2006). CMV is a problem since it is one of the major sources of measurement errors and harms the validity of the research conclusion (Podsakoff, et al., 2003). Since the current study was a cross sectional self-report study, CMV became a potential concern. To minimize the potential effect of CMV, several measures were adopted. First, anonymity of response was guaranteed to participants to reduce their concern for negative impression. Second, the dependent variables were measured in advance of the independent variables in the questionnaire, which helped minimize the guessed effect of predictors on criteria (Podsakoff, et al., 2003). Also, measurement of demographic characteristics and some control variables, which require relatively little cognitive effort, were placed at the end of the questionnaire to reduce question familiarity and stereotypic response (Lindell & Whiney, 2001). Furthermore, different scale formats, such as different points of Likert Scale and Semantic Differential Scale, were employed in the questionnaire to reduce the measurement bias caused by the commonality of endpoints of scales and anchoring effect (Podsakoff, et al., 2003). Finally, the questionnaire used in the current study is

only three pages, which is short enough to prevent the emergence of negative mood such as fatigue and boredom, which could result in CMV (Lindell & Whiney, 2001).

To assess whether CMV was a problem in this study, the Harman's single-factor test was performed first. The fundamental assumption of this technique is that if a single factor emerges or one general factor accounts for the majority of the variances in exploratory factor analysis (EFA), CMV is a significant problem (Podsakoff & Organ, 1986). Following the tradition in previous studies, all variables, excluding the demographic variables, in this study were loaded into an exploratory factor analysis (Anderson & Bateman, 1997; Greene & Organ, 1973; Greenley & Oktemgil, 1997; Schriesheim, 1979; Wang, et al., 2006) to determine the number of factors that emerged. The unrotated principal component factor analysis revealed a nine-factor solution, with the largest factor explaining only 9.835% of variance. Therefore, neither a single factor nor one general factor which accounted for majority of variance occurred. The results revealed that CMV was not a problem in this study.

However, the Harman's single-factor test was criticized as not rigorous enough by many researchers and the criterion used to assess no threat of CMV can easily be met since the likelihood of obtaining more than one factor increases as the number of variables investigated increases, therefore, making this single-factor method less strict as the model complexity increases (Podsakoff, et al., 2003). To test the CMV problem in a rigorous way a strict approach, called single-method-factor technique, was employed to further investigate the potential threat of CMV in this study. Generally, social desirability bias is assumed as the common method construct in this single-method-factor approach. Observed variables are allowed to load on their

intended constructs, as well as the common method construct (social desirability bias in this study). Significance of the structural parameters, i.e., model fit difference and significance of path regression weights, are examined and compared between the measurement models with and without this latent common method factor (Podsakoff, et al., 2003). Results of the CMV test with the inclusion of common method construct and social desirability bias, are shown in Table 5.7. Results show that the inclusion of common method construct does not change the significance of any regression weights of paths in the original measurement model. Regression weights for each indicators, except Rela5, are all higher than the recommended value of .50, which indicates overall good convergent validity (Hair, et al., 2010).

**TABLE 5.7 Common Method Variance Test with CFA**

<b>Latent Variables</b>	<b>Observed Variables</b>	<b>Standardized Regression Weight Estimates</b>	<b>P Value</b>
<b>Promotion Focus</b>	Pro2	.644	***
	Pro3	.894	***
	Pro4	.809	***
<b>Prevention Focus</b>	Pre1	.532	***
	Pre2	.643	***
	Pre3	.793	***
	Pre4	.684	***
<b>Idealism</b>	Idea1	.576	***
	Idea2	.862	***
	Idea3	.855	***
	Idea4	.853	***
<b>Relativism</b>	Rela1	.702	***
	Rela2	.708	***
	Rela3	.865	***
	Rela4	.552	***
	Rela5	.481	***
<b>Attention to Social Comparison</b>	ATSCI2	.620	***

<b>Information</b>			
	ATSCI3	.819	***
	ATSCI4	.622	***
	ATSCI5	.458	***
<b>Ethical Judgment</b>	EJ1	.659	***
	EJ2	.674	***
	EJ3	.940	***
	EJ4	.857	***
<b>Ethical Intention</b>	EI1	.816	***
	EI2	.932	***
	EI3	.773	***

NOTES:

- Measurement model contains all 29 observed variables, including Pro2, Pro3, Pro4, Pre1, Pre2, Pre3, Pre4, Idea1, Idea2, Idea3, Idea4, Rela1, Rela2, Rela3, Rela4, Rela5, ATSCI2, ATSCI3, ATSCI4, ATSCI5, EJ1, EJ2, EJ3, EJ4, EI1, EI2, EI3, SA1, SA2, with 3 observed variables deleted, including Pro1, Idea5, ATSCI1
- Social appropriateness was validated with CFA in CMV test and standardized regression weights for SA1 and SA2 are .889 and .913 respectively. Both regression weights are significant at .001 level.
- \*\*\*: significant at .001 level (two-tailed).

The comparison of the fits of the models with and without common method construct is shown in Table 5.8. As illustrated, both models show a satisfactory model fit. The model fit differences, including the differences of  $\chi^2/df$  (1.818 vs. 1.738), CFI (.936 vs. .926) and RMSEA value (.050 vs. .047) are not evident. The  $\Delta\chi^2$  of the two models is 182.5, which is not significant given the  $\Delta df$  of 121 ( $p > .10$ ). Taken together, CMV tests ensure that this study is not affected by CMV.

**TABLE 5.8 Model Fit Differences of Measurement Model and CMV Model**

<b>Model Fit Indices</b>	<b>Measurement Model</b>	<b>CMV Model</b>	<b>Model Fit Difference</b>
$\chi^2$	627.277	809.8	182.5
$df$	345	466	121
$\chi^2/df$	1.818	1.738	.080

CFI	.936	.926	.010
RMSEA	.050	.047	.003

NOTES:

$\chi^2$ =chi-square; CFI=Comparative Fit Index; RMSEA=Root Mean Square Error of Approximation;  
 $df$ =degree of freedom.

## 5.6 Correlation Matrix

The correlation matrix among all key constructs and control variables measured by continuous scales is shown in Table 5.9, which provides a preliminary overview of the relationships among the research questions. The discriminant validity of the model was assessed using a correlation matrix. A low correlation between the measures is predicted when discriminant validity is presented (Churchill, 1979). As shown in table 5.9, all the correlation coefficients are smaller than the problematic level of .80. Thus, the correlation matrix re-supports the discriminant validity of all measurement scales.

**TABLE 5.9 Correlations Matrix (N=330)**

Variables	EI	EJ	ATSCI	Idea	Rela	Pro	Pre	SA	PB	WTP	PE
EI	1										
EJ	.19**	1									
ATSCI	-.01	.10	1								
Idea	.19**	.13*	-.15**	1							
Rela	.08	-.05	.05	.16**	1						
Pro	.06	-.04	.06	.15**	.17**	1					
Pre	.07	.09	.18**	.31**	.05	.48**	1				
SA	.24**	.12*	-.03	.11	.01	.16**	.18**	1			
PB	.73**	.15**	-.04	.15**	.02	-.06	.08	.24**	1		
WTP	-.12	.08	-.02	-.02	-.07	.03	-.04	.04	-.14**	1	
PE	.16**	.12*	.07	-.07	.03	-.14	.03	.02	.20**	-.09	1

NOTES: Pre=Prevention Focus; Pro=Promotion Focus; Idea=Idealism; Rela=Relativism; EJ=Ethical Judgment; EI=Ethical Intention; ATSCI=Attention to Social Comparison Information; SDB=Social Desirability Bias; PB=Past Behavior; PE=Price Effect; SA= Social Appropriateness; WTP=Willing to Pay.

## **5.7 Hypotheses Testing with Structural Equation Modeling**

To test the hypotheses proposed in the research model, structural equation modeling (SEM) was employed with AMOS 17.0. AMOS (Analysis of Moment Structure) is a popular technique for multivariate data analysis. In addition to being a module in SPSS, AMOS is among the first SEM programs to use graphical interface for all functions. Therefore, users no longer need to use syntax commands or computer code (Hair, et al., 2010). SEM is a family of statistical models which examine the structure of interrelationships in a series of equations, similar to multiple regression equations (Hair, et al., 2010). SEM is increasingly adopted in psychological and social science research due to its capability to allow researchers to assess and modify the theoretical model in comprehensive ways (Anderson & Gerbing, 1988). SEM also allows the testing of all the relationships in the model completely and simultaneously (Ullman, 2006). Furthermore, SEM not only tests the structural model, but also can test the measurement model, which allows researchers to: obtain the loadings of the observed variables on the their corresponding latent variables; assess the measurement errors; as well as conduct factor analysis (Gefen, Straub, & Boudreau, 2000).

SEM was employed in this study to test the hypothesized relationships. The two-step procedure of SEM analysis recommended by Anderson and Gerbing (1988) was

adopted in this study. The first step was to test the measurement model with confirmation factor analysis (CFA) for the purpose of assessing the internal consistency, convergent validity and discriminant validity of the latent variables proposed in the model and the overall fit of measurement model (Chin, 1998; Gefen, et al., 2000) (completed in previous section). The second step, presented in the following section, was to test the structural model with goodness-of-fit indices for reference, including chi-square statistic ( $\chi^2$ ),  $\chi^2/df$ , CFI, RMSEA, TLI, IFI, and SRMR. These indices are assessed based on their recommended threshold values (Bentler, 1990; Gefen, et al., 2000; Hair, et al., 2010; Hu & Bentler, 1999; Browne & Cudeck, 1993).

Chi-square statistic  $\chi^2$  is the fundamental measure of differences between the observed covariance matrices and the estimated covariance matrices; it is sensitive to sample size. The chi-square value ( $\chi^2$ ) was expected to be nonsignificant, however, given that the  $\chi^2$  test is very sensitive to sample size, and a sample size of 200 is large enough to generate a statistically significant result, the ratio of chi-square value to degrees of freedom ( $\chi^2/df$ ) was done as it is a good indicator of model fit, regardless of its significance level. A value of  $\chi^2/df$  lower than 3 indicates a satisfactory model fit of data (Hair, et al., 2010).

A CFI value of or greater than .90 indicates a satisfactory model fit; the greater the better; whereas a RMSEA value of or smaller than .50 indicates a good fit of data; the smaller the better (Browne & Cudeck, 1993; Hair, et al., 2010; Hu & Bentler, 1999). Traditionally, a TLI or IFI value approaching 1 indicates a good model fit and a TLI

or IFI above .90 suggests an acceptable fit of model (Hu & Bentler, 1999). Usually, a SRMR value below .08 indicates a good model fit (Browne & Cudeck, 1993).

### **5.7.1 Structural Model Analysis**

The proposed model, except the moderating relationship, was examined first with SEM. The structural model was depicted based on the specified research relationships. Constructs were identified as either being exogenous or endogenous, where relationships were demonstrated by straight arrows among constructs. The whole model was portrayed visually with a path diagram. There were six key constructs in the portrayed path diagram, among which, prevention focus and promotion focus were identified as exogenous variables, whereas idealism, relativism, ethical judgment, and ethical intention were specified as endogenous variables in the structural model. In addition to the key constructs proposed in the model, eleven control variables were included in the path diagram of the structural equation model. All of these were identified as exogenous variables in the model with straight arrows pointed to ethical intention. The number of indicators for each construct followed the results of CFA in the previous section. In particular, there were four indicators for prevention focus, three for promotion focus, four for idealism, five for relativism, four for ethical judgment, and three for ethical intention, respectively. In structural model analysis, path estimate is used to estimate the strength of each structural relationship, which is interpreted as (standardized) estimate for regression weight in the output of AMOS.

The results of SEM are summarized in Table 5.10. In addition to the standardized estimates for regression weights, other values such as standard errors, critical ratios and level of significance are presented. Furthermore, model fit indices were used to assess the fitness of the overall model proposed. As shown in the Table 5.10, the chi-square value ( $\chi^2$ ) is 984.6 with a degree of freedom ( $df$ ) of 610. The chi-square value is significant at the significance level of .000. However, since ratio of chi-square to degree of freedom is quite low ( $\chi^2/df=1.61$ ) and is far smaller than 3, it still suggests a good fit of the model. The CFI is .926, which is above the recommended .90, implying a satisfactory model fit. The RMSEA value (.043) is below the recommended threshold value of .05, which suggests a good fit of data. Both TLI (.911) and IFI (.928) values are higher than .90, indicating a good fit of model (Hu & Bentler, 1999). Finally, SRMR is .059, which is smaller than the cut off value of .080 for a satisfactory fit of model (Browne & Cudeck, 1993). All these diagnostics suggest the model provided a good overall fit.

To test whether the hypothesized relationships were supported, the signs and magnitudes of the parameters which represented the paths between the latent variables were assessed (Diamantopoulos, et al., 2000). The path estimates for regression weights between the latent variables were examined for this purpose. In addition to the key constructs, control variables, including gender, age, education, income, religion, social appropriateness (SA), past behavior (PB), price effect (PE), willing to pay (WTP), as well as social desirability bias (SDB), were included in the path diagram with straight arrows pointed to ethical intention. Table 5.10 summarizes the information regarding the direct, indirect and total effects of exogenous/

endogenous variables on other endogenous variables. The signs and magnitudes of the estimated parameters provide information regarding the directions and strengths of the hypothesized relationships. According to Cohen (1988), estimate for regression weight with absolute values less than .10 indicate a weak effect, values around .30 suggest a medium effect, and values equal to or greater than .50 imply a strong effect.

In the current study, for hypothesis H1a, prevention focus has a positive impact on idealism with a standardized regression coefficient of .573, which is strong and significant at the level of .001. Therefore, H1a is supported. For hypothesis H1b, prevention focus has a negative effect on relativism, however, the negative relationship is not statistically significant ( $p=.823$ ). Thus, H1b is not supported. For hypothesis 2a, promotion focus has a positive effect on relativism with a standardized estimate for regression weight of .170, which is marginally significant at the level of .10 ( $p=.065$ ). By contrast, for H2b, promotion focus has a medium as well as negative impact on idealism with a standardized regression weight of -.238, which is significant at the level of .01 ( $p=.006$ ). Therefore, both H2a and H2b are supported. For H3a, idealism associates positively with ethical judgment with a standardized regression weight of .195, which is significant at the level of .01 ( $p=.002$ ). Conversely, for H3b, relativism has a negative influence on relativism with a standardized regression weight of -.127, which is marginally significant given a significance level of .05 ( $p=.054$ ). Hence, both H3a and H3b are supported. Finally, for H5, ethical judgment has a positive impact on ethical intention with a standardized regression weight of .074, which is marginally significant at the level of .10 ( $p=.071$ ). Therefore, H5 is marginally supported.

In addition, the square multiple correlation ( $R^2$ ) of ethical intention (EI) is .607, which indicates that this hypothesized model, excluding moderator, explained 60.7% of variance. The square multiple correlation ( $R^2$ ) for the structural equations indicates the amount of variance in each endogenous latent variable is explained by the exogenous latent variables, which are expected to impact upon it. Explain variance suggests the joint explanatory power by exogenous variables. The higher the  $R^2$  value, the greater the joint explanatory power of antecedents on the consequence. As a convention,  $R^2$  values of .10, .30 and .50 indicate low, moderate, and strong explanatory power respectively of the model explaining the endogenous variable. Therefore, the hypothesized model in this study has a high explanatory power (60.7%) by the joint effect of all antecedents of ethical intention.

**TABLE 5.10 Summary of Structural Equation Modeling (N=330)**

<b>Regression Relationships</b>	<b>Standardized Estimates for Regression Weights</b>	<b>Standard Errors of Regression Weights</b>	<b>Critical Ratios for Regression Weights</b>	<b>Level of Significance for Regression Weights</b>
Pre → Idea	.573	.126	5.640	***
Pre → Rela	-.022	.094	-.224	.823
Pro → Rela	.170	.073	1.846	.065
Pro → Idea	-.238	.089	-2.736	.006
Idea → EJ	.195	.050	3.090	.002
Rela → EJ	-.127	.067	-1.930	.054
EJ → EI	.074	.041	1.802	.071
SA → EI	.098	.037	2.271	.023
Marry → EI	-.050	.092	-1.009	.313
Religion → EI	-.030	.083	-.765	.444
Income → EI	-.081	.032	-1.812	.070
Edu → EI	-.021	.032	-.394	.694

Gender → EI	-.009	.086	-.220	.826				
Age → EI	.016	.044	.283	.778				
PE → EI	.004	.022	.098	.922				
PB → EI	.711	.039	13.266	***				
WTP → EI	-.029	.035	-.733	.463				
SDB → EI	-.029	.681	-.566	.571				
<b>Model Fit Indices</b>								
$\chi^2$	<i>df</i>	$\chi^2/df$	<b>P value</b>	<b>CFI</b>	<b>RMSEA</b>	<b>TLI</b>	<b>IFI</b>	<b>SRMR</b>
984.6	610	1.61	.000	.926	.043	.911	.928	.059

NOTES:

- a. \*\*\* significant at .001 level.
- b.  $\chi^2$  =chi-square; *df*=degree of freedom; CFI=Comparative Fit Index; RMESA=Root Mean Square Error of Approximation; TLI=Tucker-Lewis coefficient; IFI=Incremental Fit Index; SRMR=Standardized Root Mean Square;
- c. Pre=Prevention Focus; Pro=Promotion Focus; Idea=Idealism; Rela=Relativism; EJ=Ethical Judgment; EI=Ethical Intention; ATSCI=Attention to Social Comparison Information; Demo=Demographics, including age, gender, educational level, income level, marital status and religion; SDB=Social Desirability Bias; PB=Past Behavior; PE=Price Effect; SA=Social Appropriateness; WTP=Willing to Pay.

### 5.7.2 Moderating Effect with Multiple Group Analysis

In this study, multigroup SEM (multiple group analysis) was employed to test the moderating effect of attention to social comparison (ATSCI) on the relationship between relativism and ethical judgment. Multiple group analysis is a SEM framework to test differences between similar models estimated for different groups of respondents. Instead of comparing models with distinct specifications for the same respondents, multiple group analysis in SEM compares the same model across different groups of respondents (Hair, et al., 2010). To test the moderating effect with multigroup SEM, there are two steps according to Hair et al. (2010). First, a group model is estimated with path estimates calculated separately for each group. In this

step, all hypothesized parameters are estimated freely. Then, a second group model is estimated with the path estimate of interest constrained to be equal for all groups, which means that the moderation effect is constrained (Hair, et al., 2010). If the model fits of the second group model are significantly worse than those of the first one, then moderation effect is supported.

In this study, attention to social comparison information (ATSCI) was proposed to moderate the relationship between relativism and ethical judgment. In particular, the negative impact of relativism on ethical judgment was proposed to be weakened when a consumer's ATSCI is high. Following the multigroup SEM analysis steps, ATSCI was divided into two groups using the median-split methods recommended by Sharma, Durand, and Gur-arie (1981). ATSCI was measured with seven-point Likert scale and the median of ATSCI was 4. According to the data distribution of ATSCI, value of 4 should belong to the group with high ATSCI. Therefore, values ranging from 1 to 3.99 were placed in the first group, which was named "low ATSCI." "High ATSCI" was determined by values ranging from 4 to 7. The structural model was freely estimated first. Then the parameter from relativism to ethical judgment was constrained to be equal across both groups of high and low ATSCI.

Following the steps of multigroup SEM analysis recommended by Hair et al. (2010), two two-group structural models were established. The unconstrained model estimated an identical structural model in both groups (high ATSCI and low ATSCI) simultaneously. The model fits characteristics and regression weight estimate from relativism to ethical judgment are shown in Table 5.11. Then a second group model is estimated, the only difference being that the regression weight estimates from

relativism to ethical judgment are constrained to be equal across both groups. Results of model fit indices and regression weight estimates of both the unconstrained model and constrained model are shown in Table 5.11.

For the moderation effect of ATSCI on the negative effect of relativism on ethical judgment, as shown in Table 5.11, both models show acceptable fit (CFI, RMSEA, and  $\chi^2/df$ ), indicating their overall acceptability. The model fit of the constrained model is a bit worse than that of the unconstrained model. Although CFI (.896) and RMSEA (.036) are the same across the two models, chi-square value ( $\chi^2$ ) increases from 1772.2 in the unconstrained model to 1775.0 in the constrained model. The chi-square difference between models ( $\Delta\chi^2$ ) is 2.8, with one degree of freedom increases. This change is marginally significant at a level of .10, indicating that constraining the path from relativism to ethical judgment to be equal across groups produces worse fit. Therefore, the unconstrained model in which the relationship between relativism and ethical judgment is freely estimated in both groups is supported. Taken together, results suggest that ATSCI is a marginally significant moderator of the relationship between relativism and ethical judgment.

Looking at the standardized estimates for regression weights of the unconstrained model, the relationship between relativism and ethical judgment is highly significant ( $p < .01$ ) in the group when ATSCI is low, but insignificant for the high ATSCI group. As predicted, the strength of the negative relationship between relativism and ethical judgment is greater with a standardized estimate of -.258 when ATSCI is low, compared to a standardized estimate of -.017 when ATSCI is high. Moreover, the

regression weight estimate from relativism to ethical judgment is .127 and is only marginally significant ( $p = .07$ ) for the combined model (set the parameters from relativism to ethical judgment to be equal across both high and low ATSCI groups). Therefore, when consumers are high in ATSCI, the negative effect of relativism on ethical judgment intention is canceled out. By contrast, the negative influence of relativism on ethical judgment is strengthened when individuals are low in ATSCI.

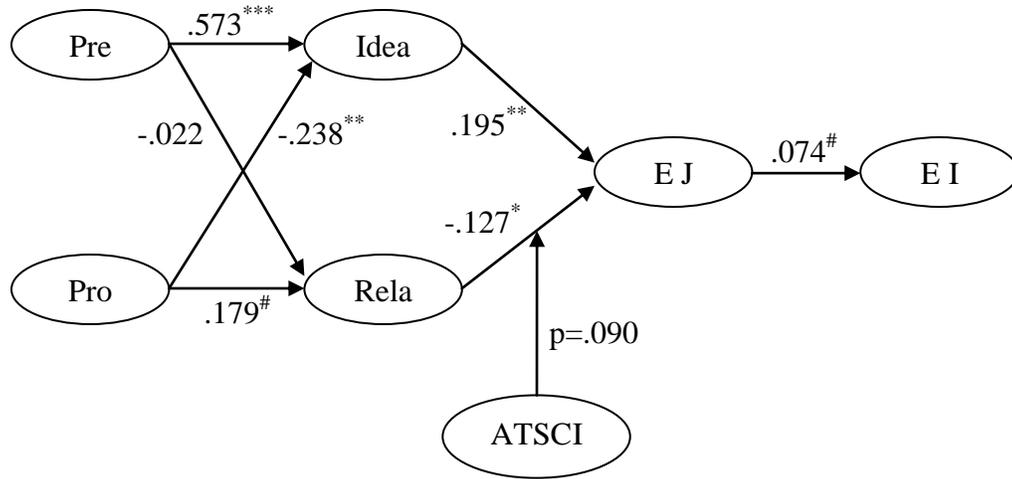
**TABLE 5.11 Moderation Effect of ATSCI with Multigroup SEM Analysis**

<b>Model Characteristics</b>	<b>Unconstrained Group Model</b>	<b>Constrained Group Model (Rela <math>\rightarrow</math> EJ Equal Across Groups)</b>
<b>CFI</b>	.896	.896
<b>RMSEA</b>	.037	.037
<b>Chi-square (<math>\chi^2</math>)</b>	1772.2	1775.0
<b>df</b>	1222	1223
<b><math>\Delta \chi^2</math></b>		2.8
<b><math>\Delta df</math></b>		1
<b>P value of Model Difference</b>		.09
<b>Standardized Regression Weights (Rela <math>\rightarrow</math> EJ)</b>	-.258** (low ATSCI) -.017 (high ATSCI)	-.127# (combined model)

NOTES:

- a. # significant at .10 level; \*significant at .05 level; \*\*significant at .01 level.
- b. Rela=Relativism; EJ=Ethical Judgment.
- c.  $\chi^2$ =chi-square;  $df$ =degree of freedom; CFI=Comparative Fit Index; RMSEA=Root Mean Square Error of Approximation.
- d. N=330

**Figure 5.1 An Estimated Structural Equation Model**



**NOTES:**

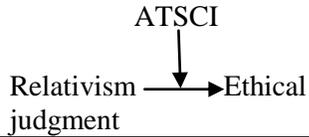
- a. # significant at .10 level; \*significant at .05 level; \*\*significant at .01 level.
- b. Pre=Prevention Focus; Pro=Promotion Focus; Idea=Idealism; Rela=Relativism; EJ=Ethical Judgment; ATSCI=Attention to Social Comparison Information; EI=Ethical Intention
- b. For brevity, demographic variables (age, gender, education level, income level, marital status, and religion) and other control variables (social desirability bias, past behavior, price effect, social appropriateness, and willing to way) are omitted from the table. For detailed statements/items, please refer to section 4.3.4.8 for reference.

**5.8 Summary**

The results of all hypotheses testing using structural model analysis and multigroup SEM analysis are summarized in Table 5.12.

**TABLE5.12 Summary of Research Hypotheses Testing**

<i>Code</i>	<i>Hypotheses</i>	<i>Standardized Regression Weights</i>	<i>P value</i>	<i>Support</i>
<b>H1a</b>	Prevention focus → Idealism	.573	***	Supported
<b>H1b</b>	Prevention focus → Relativism	-.022	.823	Not Supported
<b>H2a</b>	Promotion focus → Relativism	.170	.065	Marginally Supported

<b>H2b</b>	Promotion focus → Idealism	-.238	.006	Supported
<b>H3a</b>	Idealism → Ethical judgment	.195	.002	Supported
<b>H3b</b>	Relativism → Ethical judgment	-.127	.054	Supported
<b>H4</b>	 Relativism → Ethical judgment	-.258** (low ATSCI) -.017 (high ATSCI)	.09 ( $\Delta\chi^2$ )	Marginally Supported
<b>H5</b>	Ethical judgment → Ethical intention	.074	.071	Marginally Supported

NOTES:

- a. \*significant at .05 level; \*\*significant at .01 level; \*\*\*significant at .001 level.
- b. ATSCI=attention to social comparison information

H1a predicted that “A consumer’s prevention focus has a positive effect on idealism with that consumer.” Results with SEM found that a greater prevention focus led to a greater idealism with a high standardized regression weight estimate of .573, which was highly significant at the level of .001. Therefore, H1a was supported.

H1b predicted that “A consumer’s prevention focus has a negative effect on relativism with that consumer.” Results with SEM found that the regression weight estimate was -.022 with a p value of .823, which was far from significant at a level of .05. Although the direction of the path estimate was consistent with the predicted direction, the negative relationship between prevention focus and relativism was not significant. Therefore, H1b was not supported.

H2a predicted that “A consumer’s promotion focus has a positive effect on relativism with that consumer.” Results with SEM found that a greater promotion focus resulted in greater idealism with a regression weight of .170. The p value for this estimate was .065, which was slightly higher than the significant level of .05.

However, .065 was marginally significant if .10 was used as the reference of value of significance. Therefore, H2a was marginally supported.

H2b predicted that “A consumer’s promotion focus has a negative effect on idealism with that consumer.” Results with SEM found that a higher promotion focus resulted in a lower idealism with a medium standardized regression weight of -.238. The p value for this estimate was .006, which was highly significant at a level of .05. Therefore, H2b was supported.

H3a hypothesized that “A consumer’s idealism has a positive effect on the ethical judgment with that consumer.” Results with SEM found that a greater idealism led to a more favorable ethical judgment with a standardized regression weight of .195 and a p value of .002, which was highly significant at the level of .05. Therefore, H3a was also supported.

H3b hypothesized that “A consumer’s relativism has a negative effect on the ethical judgment with that consumer.” Results with SEM found that greater relativism resulted in a less favorable ethical judgment with a standardized regression weight of -.127 and a p value of .054. Since the p value was only .004 higher than .05, it was regarded as significant at a level of .05. Therefore, H3b was supported.

H4 predicted that “The negative effect of a consumer's relativism on ethical judgment is weakened by this consumer’s high attention to social comparison information.” Results of multigroup SEM analysis found that the model fit differences, chi-square change ( $\Delta\chi^2$ ), between the unconstrained model and constrained model, was marginally significant ( $p=.09$ ) at the significance level of .10,

suggesting that ATSCI is a marginally significant moderator on the negative impact of relativism on ethical judgment. In other words, model fit of the unconstrained model was better than that of the constrained model. When consumers were low in ATSCI, the negative effect of relativism on ethical judgment was enhanced compared to the effect when moderating role of ATSCI was constrained; by contrast, the negative effect of relativism on ethical judgment was attenuated and became insignificant when consumers were high in ATSCI. As predicted, the negative influence of relativism on ethical judgment was weakened when a consumer's ATSCI is high because the high ATSCI cancelled out the negative effect of relativism on ethical judgment. Therefore, H4b was marginally supported.

H5 predicted that "A consumer's ethical judgment has a positive effect on the ethical intention of that consumer." Results with SEM found that a more favorable ethical judgment resulted in a greater ethical intention with a standardized regression weight of .074. The p value for this estimate was .071, which was slightly higher than the significant level of .05. However, .071 was marginally significant if .10 was used as the reference of value of significance. Therefore, H5 was marginally supported.

In summary, this chapter has presented the major findings regarding the hypotheses testing. Both the measurement model and structural model were assessed with SEM. Except for two relationships, the other seven hypothesized relationship were all supported or marginally supported. All of these findings and their implications are discussed in next chapter

## **CHAPTER 6 DISCUSSION**

The purpose of this chapter is to discuss and interpret the findings reported in the previous chapter. The findings of this study are interpreted in relation to the research background, research objectives, and relevant literature of this study. Finally, both theoretical and practical contributions are discussed based on the findings of the current study.

### **6.1 Achievement of Research Objectives**

There are two major research objectives in this study. The first one is to introduce regulatory focus to the consumer ethical decision making model, and the second is to identify the boundary condition for the function of the relationship between relativism and ethical judgment. The first major research objective is two-fold in nature. First, this study aims to identify the differential interrelationships among the sub dimensions of regulatory focus and ethical ideology. Second, the current study intends to reconcile the inconsistent relationship among personality, in particular, regulatory focus in this study, ethical ideology and judgment to see whether regulatory focus functions as the antecedent of individual ethical ideology, which in turn, influences ethical judgment. To this end, six hypotheses, namely, H1a, H1b, H2a, H2b, H3a and H3b were proposed. The second major research objective is to identify a moderator for the relationship between relativism and ethical judgment

since findings in prior studies regarding this relationship were inconsistent and weakly supported (Chan, et al., 2008; Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). To this end, H4 was hypothesized. Furthermore, to extend the impact of ethical ideology from ethical judgment to ethical intention, H5 was proposed.

For the interrelationship among regulatory focus and ethical ideology, findings regarding H1a, H1b, H2a, and H2b were discussed. As reported in the previous chapter, H1a and H2b were supported, H2a was marginally supported, while H1b was not supported. For the impact of ethical ideologies on ethical judgment, both H3a and H3b were supported. For the moderating role of ATSCI, H4 was marginally supported. Finally, for the extended effect of ethical ideology on ethical intention, H5 was also marginally supported. Rationales and reasons about the hypotheses are supported or not supported are discussed in the following section.

## **6.2 Discussion of Results of Hypotheses**

H1a predicts that a greater prevention focus leads to a greater idealism and it is empirically supported. Prevention focus is characterized as “conservative-biased.” Consumers who are high in prevention are risk-averse and defensive and tend to avoid making mistakes (Higgins, 1998; Keller, et al., 2008). Individuals with high idealistic orientation believe that the right outcomes can always be obtained through morally right actions (Forsyth, 1980; Forsyth, 1992). Therefore, idealistic individuals tend to follow universal moral principles and avoid harming others. In addition,

prevention-focused individuals concentrate on responsibility and duties, and they avoid mismatch to such responsibilities (Higgins, 1997). Such concern for responsibilities leads to high ethical standards. Therefore, when facing questionable consumer conduct, prevention-focused consumers are more likely to adopt idealistic philosophies when making ethical decisions.

H1b predicts that a prevention focus has a negative impact on relativism with this consumer. However, results with SEM showed that there was no significant relationship between prevention focus and the level of relativism. The basic logic for H1b is that consumers high in relativism are open to change and are associated with a risky bias. Such tendency to take risk is contradictory to prevention focus, which is characterized as conservative (Forsyth, 1980; Higgins, 1997, 1998). Therefore, a high prevention focus of a consumer has a negative impact on the relativism with that consumer. However, relativism is positively related to skepticism. When making ethical decisions, people high in relativism tend to reject absolute moral rules and refer to the trade-off between possible benefits and harms, or their personal analysis (Forsyth, 1980; Forsyth & Pope, 1984). Relativistic individuals believe that there are always diverse ways to look at morality, and they are looking for the contextual appropriateness of ethics rather than an absolute rightness or wrongness in terms of ethics (Forsyth, 1980). Such comparison between the potentially desirable and undesirable consequences of the ethical issues involved and the context-specific analysis do not necessarily associate with a risky bias; instead, such high relativism reflects a high level of prudence and conservation since ethical decisions derived from high relativism are obtained through thoughtful analysis and comparisons.

Taken together, it is possible that prevention focus has diverse and competing impacts on prevention focus. These two competing influences offset each other when they occur simultaneously, resulting in the nonsignificant result regarding the impact of prevention focus on relativism in this study.

H2a predicts that an individual consumer's promotion focus has a positive impact on the relativism with that consumer. This hypothesis is marginally supported with SEM analysis. Promotion focus is characterized as "risk-biased." People with promotion focus are open to change and prone to taking risks in order to capture every opportunity to accomplish success (Higgins, 1998). As a result, consumers high in promotion focus tend to reject fixed patterns which might prevent them from an opportunity for accomplishment. People with high relativism make decisions or judgments based on the consequences of the practices involved, in particular, the tradeoff of between the potential benefits and harms accompanied with the practices (Hunt & Vitell, 1986). Relativistic consumers reject following absolute ethical standards, and they are situational when approaching ethical thoughts or ethical decisions (Forsyth, 1980). Therefore, people with high promotion focus, who are risk-biased and open-minded, are more likely to adopt a relativistic-oriented philosophy when making ethical decisions.

H2b hypothesizes that the greater an individual consumer's promotion focus, the lesser the idealism with that consumer. This hypothesis is also supported with SEM analysis. In contrast to relativism, consumers high in idealism believe that good consequences can always be obtained through morally right behaviors (Forsyth, 1980). Idealistic consumers are rule oriented, and they tend to stick to the existing

rules and norms (Bateman & Valentine, 2010). Oriented by a strong sense of rule, people high in idealism adhere to existing universal principles rather than being situational, thus idealistic people are associated with a conservative bias. Nevertheless, consumers who are high in promotion focus emphasize changes in order to capture every opportunity for accomplishment (Crowe & Higgins, 1997; Higgins, 1997, 1998). They reject adhering to fixed rules which might prevent them from realizing a chance for achievement. Given the risky-bias associated with promotion focus, individuals who are high in promotion focus are not likely to be high in idealism, which embraces a conservative bias and rule orientation.

H3a proposes that a consumer's idealism has a positive effect on the ethical judgment with that consumer. This hypothesis is supported in this study with structural analysis in SEM. This prediction is consistent with previous findings. It was first implied by Schlenker and Forsyth in 1977 and was empirically examined by many studies in the past two decades (Kleiser, et al., 2003; Singhapakdi, et al., 1995). Specifically, an idealism-oriented person, who embraces optimism and altruism, believes that good consequences can always be achieved through ethical actions; he or she tends to be intolerant of ethically questionable behaviors. Consumers high in idealism believe that harming others is always avoidable (Forsyth, 1980; Forsyth & Pope, 1984). In this study, the ethically questionable behavior is NOT BYOB practice, in particular, consumers who request plastic bags from cashiers and do not bring their own shopping bags. Results found that consumers who rated high in idealism, compared to those who were low in idealism, considered NOT BYOB practice to be more unethical, more incorrect, worse, and more unacceptable,.

H3b hypothesizes that the greater the relativism the consumer endorses, the lesser the consumer's ethical judgment. Similarly, this prediction is consistent with previous theoretical and empirical findings (Schlenker & Forsyth, 1977; Kleiser, et al., 2003; Singhapakdi, et al., 1995). It was maintained that individuals high in relativism tended to reject absolute ethical rules and adopt personal standards when making ethical judgments. Relativism-oriented consumers tend to be more tolerant to ethically questionable behaviors than do consumers oriented by idealism. In this study, H3b was marginally supported ( $p=.54$ ), although it can be regarded as significant since the  $p$  value of H3b was only slightly higher than .05. This is consistent with prior research on the relationship between relativism and ethical judgment. Compared to the consistent empirical support to the positive relationship between idealism and ethical judgment, the negative impact of relativism on ethical judgment was inconclusive and weakly supported (Chan, et al., 2008; Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). For instance, when using the Consumer Ethics Scale as the measurement of ethical judgment, it was found that the negative influence of relativism on ethical judgment was only significant for one scenario out of four scenarios of the Consumer Ethics Scale (Steenhaut & Van Kenhove, 2006). Another study found that both deontology and teleology, which parallel idealism and relativism respectively (Bateman & Valentine, 2010; Forsyth, 1992; Steenhaut & Van Kenhove, 2006), had positive effects on individual ethical judgment and teleology (relativism) and even exerted stronger positive influence on ethical judgment than did deontology (idealism) (Chan, et al., 2008). This contradicted prior predictions regarding the relationship between ethical ideology and ethical judgment (Forsyth,

1980). The current study argues that the inconsistent and weak findings regarding the relationship between relativism and individual ethical judgment might be attributable to the contextual cues to social inappropriateness created in the scenarios. Consumers controlled their behaviors or thoughts to different extents according to the situational cues to social appropriateness and used these cues as guideline to monitor and manage their own self-presentations and expressive behaviors (Snyder, 1974). In the current study, consumers high in relativism might still rate high in ethical judgment when they were sensitive to the situational cues to social appropriateness of BYOB practices which were implied by the questionnaires. Therefore, the negative impact of relativism on ethical judgment was only marginally supported. This study proposed that the weak relationship between relativism and ethical judgment was moderated by a personality trait, namely attention to social comparison information (ATSCI), as discussed on the findings for H4.

H4 hypothesizes that the negative impact of a consumer's relativism on ethical judgment is attenuated when this consumer's attention to social comparison information is high. The implicit assumption of this hypothesis is that BYOB practice is considered socially appropriate. Therefore, perceived social appropriateness of BYOB practice was measured and results supported this assumption. Individuals high in ATSCI, even when they are oriented by relativism, are expected to be sensitive to the moral elements of BYOB practice. Such sensitivities to moral components will lead to a high perception of moral intensities, which in turn, results in lower tolerance to ethically questionable practices (Jones, 1991; Lennox & Wolfe, 1984). Therefore, even though consumers high in relativistic orientation are expected to be tolerant of

NOT BYOB practice, the negative impact of relativism on ethical judgment toward NOT BYOB practice will be weakened since higher ATSCI will lead to greater perception on the moral intensities of BYOB practice. Results with multigroup SEM analysis found that not only high ATSCI attenuated the negative effect of relativism on ethical judgment toward NOT BYOB behaviors, but also that the negative impact was strengthened when consumers were low in ATSCI. In other words, when relativism- oriented consumers pay little attention to other consumers' behaviors and the social anticipation of their behaviors, they make ethical judgments and decisions following their true value, and they tend to be situational and tolerant when facing ethical dilemmas, in particular, NOT BYOB practice in this study. Therefore, the negative effect of relativism on ethical judgment toward NOT BYOB practice was strengthened when consumers were low in ATSCI.

## **6.3 Contribution**

### **6.3.1 Theoretical Contribution**

To begin, this study makes the initial attempt to introduce regulatory focus theory into consumer ethics research, in particular, consumer ethical decision making. Personality traits have long been suggested to play important roles in an individual's ethical decision- making process, yet few studies have been conducted to examine the impacts of individual ethical decision making. Furthermore, research on the impact of personality on consumer ethics has been concentrated on the relationship between

personality and ethical belief or ethical judgment. How individual dispositional traits influence the consumer ethical decision making process was unknown (De Bock & Van Kenhove, 2010; Rallapalli, et al., 1994). This study fills this gap by specifically examining the role of an important personality construct, regulatory focus, into the consumer ethical decision making process, thus contributing new knowledge to consumer ethics research.

Second, the current research is the first study to explore the relationship between personal regulatory focus and individual ethical ideology. Results show that both ethical ideology and regulatory focus are dichotomous, and their sub dimensions relate to each other differentially. In particular, consumers who are high in prevention focus tend to be high in idealism but low in relativism; by contrast, consumers with high promotion focus are high in relativism but low in idealism. The interplay between individual personalities, in particular, regulatory focus and ethical ideology, warrants further elaboration and examination as they represent promising avenues for new insights into the consumer ethics.

Third, the present study reconciles the inconsistent findings regarding the relationship between relativism and ethical judgment by introducing attention to social compassion information (ATSCI) as the moderator (Chan, et al., 2008; Singh, et al., 2007; Steenhaut & Van Kenhove, 2006). In the present study, high ATSCI, which enhances the perceived moral intensities on NOT BYOB practices, does weaken the negative influence of relativism on consumers' ethical judgments toward NOT BYOB behavior as predicted. Surprisingly, low ATSCI, which reflects consumers' true values and attitudes, intensifies the negative impact of relativism on

ethical judgment toward NOT BYOB behavior. Thus, the introduction of ATSCI reconciles prior inconsistent findings regarding the strength of relativism on ethical judgment by specifying the boundary condition for the function of this relationship.

In addition, prior research on marketing ethics was concentrated on the seller side, whereas the buyer side has long been ignored. The ethical issues of marketers or managers have received extensive attention and investigation in the marketing ethics literature, yet only a limited number of studies have been conducted to investigate consumer ethics (Ferrell, et al., 1989; Hunt & Vitell, 1986; Murphy & Laczniak, 1981; Singhapakdi, et al., 1996; Tsalikis & Fritzsche, 1989; Vitell, et al., 2001). This study not only provides a theoretical model for the consumer ethical decision making, but also offers empirical support to the proposed model in the present study. Hence, this study enriches the academic understanding of consumer ethics by uncovering the underlying mechanism of the consumer ethical decision making process.

Finally, this is also one of the first studies to apply ethical theories, or an ethical decision making framework to investigate consumers' green practices (Chan, et al., 2008; Cherrier, 2006). Although the innate moral components of consumers' green behaviors are well accepted in the marketing ethics literature and research on consumers' green behaviors is found to be one of two major streams of consumers' ethically related behaviors in the consumer ethics literature review (Vitell, et al., 2001; Vitell & Muncy, 1992), consumers' environmentally supportive behaviors are traditionally investigated from the general socio-psychological perspective. Only a handful of studies have been conducted to investigate consumers' green behaviors from an ethical perspective (Chan, et al., 2008; Cherrier, 2006). Thus, this study fills

this research gap by applying ethical concepts, in particular, ethical ideology, ethical judgment as well as ethical intention, to examine consumers' BYOB practice. This study provides further support to the argument that consumers' green behaviors are ethics-related, and their intentions to engage in green behaviors are motivated by their moral concerns for the environment, thus advances the understanding to both the consumer ethics research as well as study of consumers' green behaviors.

### **6.3.2 Managerial Implications**

Practitioners can benefit from this study in three ways in order to popularize ethical or green practices among consumers:

First, the introduction of regulatory focus encourages consumers' ethical or green intentions by temporarily inducing consumers' prevention focuses. As discussed earlier, regulatory focus is not just a chronic personality which reflects individual difference, it is also a situational factor which can be triggered temporarily (Higgins, 1997, 1998). Empirical studies also support the idea that prevention focus or promotion focus can be temporarily elicited in response to corresponding stimuli, regardless of a consumer's stable regulatory focus system. The corresponding strategies of prevention focus or promotion focus are the same regardless of whether these are chronic traits or situational reactions (Förster, Higgins, & Bianco, 2003; Higgins, 1997; Wallace & Gilad, 2006). By discovering the underlying differential relationships among the different dimensions of regulatory focus (prevention focus

versus. promotion focus) and ethical ideology (idealism versus relativism), the present study provides guidelines for practitioners to promote ethical or environmentally-supportive practices among consumers. In particular, practitioners can emphasize the social and moral responsibilities associated with the green behaviors they aim to promote. They can also emphasize the negative consequences of immoral or anti-environmental practices when designing public advertisements in order to trigger consumers' prevention focus strategy, which is positively related to idealism. Consumers high in idealism tend to be intolerant of unethical or ethically questionable practices and are willing to engage in moral or green behaviors. Therefore, when designing public advertisements or public policies, practitioners can increase consumers' intentions to engage in ethical or green practices by triggering the prevention focus system of consumers.

Second, the introduction of attention to social comparison information (ATSCI) also sheds light on encouraging ethical or environmental practices among consumers. Results of this study found that high ATSCI weakened the negative impact of relativism on ethical judgment toward NOT BYOB practice, while low ATSCI strengthened this negative influence. Therefore, practitioners can take advantage of all possible sources to create strong situational cues to the social appropriateness of ethical practices such as donation and environment protection. Taking BYOB practice as an example, practitioners can highlight the situational cues to social appropriateness with BYOB, which might come from other consumers' BYOB practices, praise from cashiers when consumers use their own shopping bags, anticipated positive evaluation from other consumers when engaging in BYOB

practices, and the explicit promotion toward the ethicality of BYOB practice by endorsers in advertisings. All these scenarios could elicit the ATSCI of consumers which helps attenuate the negative effect of relativism on ethical judgment.

Lastly, environmental policy-makers can benefit from the present study by understanding the underlying mechanism of consumers' green decision making. The present study empirically supports the notion that consumers with high idealistic philosophy tend to have high moral standards and are likely to support ethical behaviors while rejecting immoral practices. By successfully investigating consumers' green behaviors from an ethical perspective, practitioners might have to take individual morality into account when fine-tuning environmental policies. In particular, education, especially the education of youth would enhance ethics education generally and help children and adolescents establish universal moral principles, or idealistic ethical ideologies, which are important for the establishment of individual ethical thinking, including ethical judgment and ethical intention. As for BYOB practice in particular, various measures have been introduced with the aim of reducing the abuse of disposable plastic bags. These policies were effective only at the beginning of their implementation with the usage of plastic bags rebounding after these policies had been in place for a period of time (HKEPD, 2007). The present study provides a possible explanation for the dissatisfactory effects of those environmental policies on BYOB practice. While external control and supervision are necessary for achieving the objective of sustainable development of the environment, consumers' internal moral concerns for the environment are essential for their engagement in environmentally friendly practices.

## **CHAPTER 7 CONCLUSION**

This chapter provides a conclusion for the whole study. A brief summary of the present study, including the aforementioned predictions of this study and the major findings are presented. Then limitations of this study and corresponding suggestions for future research are provided.

### **7.1 Summary**

The findings of this study provide additional partial support to the comprehensive ethical decision making model proposed by Hunt and Vitell (1986, 1993), which postulates that individual characteristics, particularly, regulatory focus in this study, influence ethical ideology, which in turn, determines ethical judgments. Regarding the relationship between regulatory focus and ethical ideology, this study further proposes that prevention focus has a positive impact on idealism but negatively affects relativism; by contrast, promotion focus associates positively with relativism but negatively with idealism. Furthermore, the current study extends the impact of ethical ideology from ethical judgment to ethical intention. In addition, the current study postulates that the relationship between relativism and ethical judgment is moderated by another personality trait, namely attention to social comparison information (ATSCI).

The findings, as determined by structural equation modeling analysis, generally support the hypothesized model, as discussed in previous chapter. Personalities, as

predicted, do determine individuals' ethical ideologies. In particular, the positive influence of prevention focus on idealism was supported; the negative impact of prevention focus on relativism failed to be supported; both the positive relationship between promotion focus and relativism and negative relationship between promotion focus and idealism were supported with structural model analysis in AMOS. Additionally, consumers with higher idealism tended to be less intolerant of NOT BYOB practices while consumers with greater relativism showed more tolerance toward such behavior. The moderating role of ATSCI was supported. ATSCI marginally moderated the negative impact of relativism on ethical judgment toward NOT BYOB behavior. Finally, results indicated that consumers who were less tolerant toward NOT BYOB practice (grater ethical judgment) were more willing to bring their own shopping bags (greater ethical intention) than were consumers who were less tolerant toward NOT BYOB practice (less ethical judgment).

## **7.2 Limitations and Future Research**

The findings of this study should be interpreted with attention to some limitations. Corresponding suggestions for future research are also discussed while acknowledging the limitations with this study.

The first limitation of this study is about the generalizability of the findings. The data of this study was collected in Hong Kong only, thus, the findings of this study may not be applicable to other regions or countries. Many studies have found the

existence of cultural differences with regard to some concepts investigated in this study, including regulatory focus, ethical ideology, and ethical judgment (Singh & Vitell, 2007; Al-Khatib, Vollmers, & Liu 2005; Lee, Aaker, & Gardner, 2000; Aaker & Lee, 2001). Therefore, the patterns found in this study regarding the differential relationships among these concepts might not hold true in other cultures.. Further studies are suggested to validate the conceptual model proposed in this study in western countries to examine whether the findings can be replicated in another culture.

Similar concern might arise from the examined concept, BYOB practice in this study. The major objective of the current study is to provide and validate a new model of the consumer ethical decision making process. However, the new model was only validated with BYOB practice. It is believed that the new theoretical model for consumer ethical decision making proposed in this study can work well in other unethical practices (practices with higher moral intensities) since it has been empirically validated by BYOB practice (a practice with a lower moral intensity). Future studies are recommended to test the theoretical model in other ethical dilemmas, such as software privacy and vandalism.

The sampling technique was another drawback of this study. Non-probability sampling was employed in this study due to the difficulty and complexity of random sampling. However, various methods were adopted to reduce selection bias and to improve the representativeness of sample. First, instead of collecting data in one supermarket, respondents were selected from two supermarkets, PARKnSHOP and Wellcome, in two different districts, Hong Kong Island and Kowloon peninsula,

respectively. Second, instead of surveying respondents at a consistent day and time, data was collected at different times, including weekdays and weekends, morning, afternoon, and evening. Therefore, consumers with different shopping habits, diverse occupations and different incomes were more likely to be included. Finally, consumers with diverse age, education, gender and income were intercepted for interview without selection bias. Data regarding the demographic information of respondents indicates sufficient diversity of the sample (see Chapter 5). To be rigorous, future studies are encouraged to use random sampling. For instance, supermarkets should be randomly selected with every fifth consumer intercepted for interview.

Furthermore, this study fails to support that prevention focus has a negative impact on relativism. In Chapter 6, an alternative explanation was offered regarding the failure of this prediction. It was argued that while a high relativism can lead to a tendency to take risk, high relativism is expected to positively relate to prudence since relativistic consumers rely on comprehensive comparisons among potential consequences and thoughtful analysis of the contexts involved (Forsyth, 1980; Forsyth & Pope, 1984). In summary, prevention focus, which is characterized as conservative-biased, has competing influences on relativism and does not necessarily lead to a high relativism (Forsyth, 1980; Higgins, 1998). When these two competing factors occur simultaneously, they offset each other and no effect can be detected regarding the effect of prevention focus on relativism. It is postulated that there might be some boundary conditions in which one impact overwhelms the other. Further

research is strongly recommended to explore the possible boundary condition for the relationship between prevention focus and relativism.

The final concern for this study is that it uses ethical intention as a proxy to ethical behavior, while the actual performance of consumers' ethical behavior is not explored. Therefore, this study only partially validates the comprehensive ethical decision making model of Hunt and Vitell (1986, 1993). However, since the positive impact of ethical intention on ethical behavior was well established, it was acceptable to take ethical intention as a proxy to individual ethical behavior (Steenhaut & Van Kenhove, 2006). Further studies are recommended to extend the influence of ethical ideology from ethical intention to ethical behavior using a longitudinal study design.

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## APPENDIX I Questionnaire of Pilot Study

### 關於消費者自備購物袋的問卷調查

尊敬的先生/女士，

您好！首先，衷心感謝各位參與此次研究項目。這份調查問卷是由香港理工大學管理及市場學系設計，旨在研究消費者自備購物袋購物的情況。所有資料只作科學研究，調查資料將會保密，研究結果只展現綜合數據，不涉及任何個人信息。

研究結果的可信賴度取決於閣下對問題的認真和客觀回答，請你填寫此問卷時，細心閱讀各項問題，真實地表達您的感受。您所提供的資料對我們的研究會有很大幫助。

管理及市場學系  
工商管理學院

**第一部份：本部份是關於您自備購物袋去超市購物的情況調查，所有資料僅供研究用途。**

**注意：以下問卷出現的“自備購物袋”是指所有不向超市購買（索取）塑膠袋的行為，包括用自己的書包、購物袋甚至手等帶走已購買商品；“不自備購物袋”特指向超市索取塑膠袋。**

1. 考慮所有因素，你將來選擇自備購物袋去超市購物的機會有幾大？

一定會帶

完全不可能會帶

1            2            3            4            5            6            7

2. 請選擇最能代表你下次去超市購物自備購物袋的傾向。

肯定會帶

肯定不會帶

1            2            3            4            5            6            7

3. 如果有人叫你自備購物袋去超市購物，你會幾經常帶你的購物袋去購物？

一次都不帶

每次都帶

1            2            3            4            5            6            7

4. 根據可能發生的後果以及你自己個人的價值觀，你如何評價不自備購物袋去超市購物的行為？

<b>道德的</b>						<b>不道德的</b>	
1	2	3	4	5	6	7	
<b>可以接受的</b>						<b>不可以接受的</b>	
1	2	3	4	5	6	7	
<b>正確的</b>						<b>不正確的</b>	
1	2	3	4	5	6	7	
<b>好的</b>						<b>壞的</b>	
1	2	3	4	5	6	7	

第二部份：請您仔細閱讀以下句子，並在最能表達您觀點的數字上畫圈。

	<b>對我而言完全錯誤</b>									<b>對我而言完全正確</b>								
1. 每當我做一些重要的事情，我發現我的表現會比理想表現差。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
2. 我覺得我已經在我的人生目標奮鬥中有所進步。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
3. 當我發現一個好機遇，我會立即非常興奮。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
4. 我經常思考如何實現我的希望和抱負。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
5. 我經常努力奮鬥去實現‘理想的我’——包括實現我的希望，願望，以及抱負。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
6. 過去我通常會聽從父母的管教。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
7. 我曾經因為不夠細心而惹麻煩。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
8. 我經常擔心會犯錯。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
9. 我經常思考如何避免人生中的失敗。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
10. 我經常努力奮鬥去完成我應盡的責任，職責及義務。	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9

	<b>完全正確</b>							<b>完全錯誤</b>						
1. 我覺得如果在一個群體裡所有人都是那樣做，那種行為必定是正確的。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. 我盡量避免自己衣著不合潮流。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. 參加社交聚會時，我盡量令自己的舉止得宜。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

4. 當我在一些社交場合不知所措的時候，我會參考其他人的做法。	1	2	3	4	5	6	7
5. 爲了避免自己舉止不當，我會儘量留意別人對我行為的反應。	1	2	3	4	5	6	7
6. 我發現我會從別人身上學習流行語，並把它們當做我的日常詞匯中。	1	2	3	4	5	6	7
7. 我會留意別人的穿著。	1	2	3	4	5	6	7
8. 和別人交往的時候，即使別人眼神流露出很輕微的不同意，我都會改變我的舉止方式。	1	2	3	4	5	6	7
9. 融入我所在的群體對我來說很重要。	1	2	3	4	5	6	7
10. 我的行為往往取決於我覺得別人希望我怎麼做。	1	2	3	4	5	6	7
11. 在社交場合中，事無大小，我都會參考別人的做法。	1	2	3	4	5	6	7
12. 我通常會參考別人的穿著，使自己能夠跟上潮流。	1	2	3	4	5	6	7
13. 在社交場合，我不會隨波逐流，而是按我當時的心情去做。	1	2	3	4	5	6	7

	完全同意								完全不同意
1. 人應該保證他們的行為絕不會故意傷害到他人，哪怕只是一點傷害。	1	2	3	4	5	6	7	8	9
2. 不管危險多低，施加於他人身上的危險是絕不能容忍的。	1	2	3	4	5	6	7	8	9
3. 對他人構成潛在傷害的決定總是錯誤的，不管該決定有什麼潛在的好處。	1	2	3	4	5	6	7	8	9
4. 一個人絕不應該傷害他人，不管是心理上還是生理上的傷害。	1	2	3	4	5	6	7	8	9
5. 人不應該做一些可能以不同方式威脅到他人的尊嚴和福利的行為。	1	2	3	4	5	6	7	8	9
6. 如果一件事會傷害到無辜，那麼就不應該做這件事情。	1	2	3	4	5	6	7	8	9
7. 通過衡量某種行為結果的利弊來決定是否執行該行為，這樣的做法是不道德的。	1	2	3	4	5	6	7	8	9
8. 無論在任何社會，人的尊嚴和幸福都應該是最重									

要的事情。	1	2	3	4	5	6	7	8	9
9. 犧牲他人的幸福永遠都是不必要的。	1	2	3	4	5	6	7	8	9
10. 道德行為是指那些近乎完美的行為。	1	2	3	4	5	6	7	8	9
11. 世界上沒有什麼道德標準是不可或缺的。	1	2	3	4	5	6	7	8	9
12. 道德標準應該根據具體情況和社會差異而有所不同。	1	2	3	4	5	6	7	8	9
13. 道德標準應該被視為因人而異的；同一件事情，有人認為是道德的但在別人眼中可能不道德的。	1	2	3	4	5	6	7	8	9
14. 不同類型的道德是不可以用對錯來比較的。	1	2	3	4	5	6	7	8	9
15. “何謂道德”這個問題永遠不可能得到解決，因為什麼是道德或不道德根本是因人而異的。	1	2	3	4	5	6	7	8	9
16. 道德標準不過是個人行為準則，而不應該用於來評價他人的行為。	1	2	3	4	5	6	7	8	9
17. 人際關係中的道德考慮非常複雜，因此我們應該容許個人擁有自己的一套道德標準。	1	2	3	4	5	6	7	8	9
18. 編訂一套嚴謹的道德標準來防止某些行為會妨礙人際關係的良性發展和改進。	1	2	3	4	5	6	7	8	9
19. 制定規則來制約謊言是不可能的；說謊是否可被接受完全取決於當時的情況。	1	2	3	4	5	6	7	8	9
20. 評價一個謊言是否道德取決於當時的情況。	1	2	3	4	5	6	7	8	9

完成問卷以後，請您再檢查一遍，看是否有錯答或漏答。

**再次感謝您對本調查的支持！**

## APPENDIX II Questionnaire of Main Study

### 關於消費者自備購物袋的問卷調查

尊敬的先生/女士，

您好！這份調查問卷是由香港理工大學管理及市場學系設計，旨在研究消費者自備購物袋購物的情況。所有資料只作科學研究，調查資料將會保密，**研究結果只展現綜合數據**，不涉及任何個人信息。研究結果的可信賴度取決於閣下對問題的認真和客觀回答，請你填寫此問卷時，細心閱讀各項問題，**真實地表達您的感受**。您所提供的資料對我們的研究會有很大幫助。最後，對您的參與及幫助表示衷心的感謝！

**第一部份：本部份是關於您自備購物袋去超市購物的情況調查，所有資料僅供研究用途。**

**注意：**問卷出現的“自備購物袋”泛指用除了向超市購買的塑膠袋以外的所有形式，包括自己的手袋、書包、購物袋甚至雙手等帶走已購買商品，即不向超市購買塑膠袋。

1. 考慮所有因素，你**將來**選擇自備購物袋去超市購物的**機會**有幾大？

完全不可能

一定

1            2            3            4            5            6            7

2. 請選擇最能代表你**下次**去超市購物自備購物袋的傾向。

肯定不會

肯定會

1            2            3            4            5            6            7

3. 如果有人叫你自備購物袋去超市購物，你會**幾經常**帶你的購物袋去購物？

一次都不會

每次都會

1            2            3            4            5            6            7

4. 假設你忘記自備購物袋，你願意為索取一個塑膠袋所支付的最大金額為\_\_\_\_\_港幣。

5. 您過去六個月自備購物袋去超市購物的頻率是？

從不

每次

1 2 3 4 5 6 7

6. 根據可能發生的後果以及你自己個人的價值觀，你如何評價在超市購買塑膠帶的行為？

道德的						不道德的	
1	2	3	4	5	6	7	
可以接受的						不可以接受的	
1	2	3	4	5	6	7	
正確的						不正確的	
1	2	3	4	5	6	7	
好的						壞的	
1	2	3	4	5	6	7	

第二部份：本部份提及的行為是指一般情況下的行為，不局限于自備購物袋。

	對我而言完全錯誤								對我而言完全正確
1. 我覺得我已經在我的人生目標奮鬥中有所進步。	1	2	3	4	5	6	7	8	9
2. 當我發現一個好機遇，我會立即非常興奮。	1	2	3	4	5	6	7	8	9
3. 我經常思考如何實現我的希望和抱負。	1	2	3	4	5	6	7	8	9
4. 我經常努力奮鬥去實現‘理想的我’——包括實現我的希望，願望，以及抱負。	1	2	3	4	5	6	7	8	9
5. 過去我通常會聽從父母的管教。	1	2	3	4	5	6	7	8	9
6. 我經常擔心會犯錯。	1	2	3	4	5	6	7	8	9
7. 我經常思考如何避免人生中的失敗。	1	2	3	4	5	6	7	8	9
8. 我經常努力奮鬥去完成我應盡的責任，職責及義務。	1	2	3	4	5	6	7	8	9

	完全錯誤							完全正確
1. 我覺得如果在一個群體裡所有人都是那樣做，那種行為必定是正確的。	1	2	3	4	5	6	7	
2. 爲了避免自己舉止不當，我會盡量留意別人對我行爲的反應。	1	2	3	4	5	6	7	
3. 我的行為往往取決於我覺得別人希望我怎麼做。	1	2	3	4	5	6	7	
4. 在社交場合中，事無大小，我都會參考別人的做法。	1	2	3	4	5	6	7	
5. 我通常會參考別人的穿著，使自己能夠跟上潮流。	1	2	3	4	5	6	7	

	完全不同意									完全同意
1. 無論危險多低，都絕不能容忍將危險施加在他人身上。	1	2	3	4	5	6	7	8	9	
2. 人絕不應該做出傷害他人的事，無論是心理上還是生理上的傷害。	1	2	3	4	5	6	7	8	9	
3. 人不應該做一些可能威脅到他人的尊嚴和福利的行為。	1	2	3	4	5	6	7	8	9	
4. 如果做一件事會傷害到無辜，就不應該做這件事情。	1	2	3	4	5	6	7	8	9	
5. 可能傷害到他人的決定總是錯誤的，無論該決定有什麼潛在好處。	1	2	3	4	5	6	7	8	9	
6. 道德標準應該被視為因人而異的；同一件事情，有人認為是道德的，但其他人可能認為是不道德的。	1	2	3	4	5	6	7	8	9	
7. 不同類型的道德不可以用對錯來比較。	1	2	3	4	5	6	7	8	9	
8. “何謂道德”這個問題永遠不可能得到解決，因為什麼是道德或不道德根本是因人而異的。	1	2	3	4	5	6	7	8	9	
9. 道德標準不過是個人行為準則，而不應該用於來評價他人的行為。	1	2	3	4	5	6	7	8	9	
10. 人際關係中的道德考慮非常複雜，因此我們應該	1	2	3	4	5	6	7	8	9	

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容許個人擁有自己的一套道德標準。

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	對我而言正確	對我而言錯誤
1. 即使對那些討厭的人，我依然彬彬有禮。	0	1
2. 我從未佔過他人便宜。	0	1
3. 無論我在和誰談話，我總是一位很好的聆聽者。	0	1
4. 有時候我也會斤斤計較，希望得到公平對待。	0	1
5. 當我沒達到自己的目的，或得到自己想得到的東西，有時我也會感到氣憤。	0	1

### 第三部份：個人資料

性別： A. 男 B. 女

年齡：

A. 18 至 29 歲 B. 30 至 39 歲 C. 40 至 49 歲 D. 50 至 59 歲 E. 60 歲以上

教育程度：

A. 中三以下 B. 中三至中五 C. 中五至中七  
D. 副學士（高級文憑） E. 大學學士 F. 碩士 G. 博士

平均月收入（包括所有稅後收入，譬如工資，家用，投資等）

A. 5,000 港幣以下 B. 5,001 至 10,000 港幣 C. 10,001 至 20,000 港幣  
D. 20,001 至 30,001 港幣 E. 30,001 至 40,000 港幣 F. 40,001 至 50,000 港幣  
G. 50,001 港幣 或以上

是否有宗教信仰？ A. 是 B. 否

婚姻狀況： A. 已婚 B. 單身 C. 離異

## 再次感谢您对本调查的支持！