A Comparative Study of Green Purchase Intention between the Collectivistic (Chinese) and the Individualistic (American) Consumers in Shanghai, China

Ms. LingYun Chen

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Business Administration in Marketing
Graduate School of Business
Assumption University
Academic Year 2013

A Comparative Study of Green Purchase Intention between the Collectivistic (Chinese) and the Individualistic (American) Consumers in Shanghai, China

Ms. LingYun Chen

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Business Administration in Marketing
Graduate School of Business
Assumption University
Academic Year 2013
Copyright of Assumption University

Thesis Title	A Comparative Study of Green Purchase Intention between the Collectivistic (Chinese) and the Individualistic (American) Consumers in Shanghai, China
By	Ms. LingYun Chen
Major	Marketing
Thesis Advisor	Assistant Professor Sirion Chaipoopirutana, Ph.D.
Academic Year	2013

The Graduate School of Business, Assumption University, has approved this thesis as a partial fulfillment of the requirements for the Degree of Master of Business Administration in Marketing.

_____ Dean of the Graduate School of Business

(Kitti Phothikitti, Ph.D.)

THESIS EXAMINATION COMMITTEE

_____ Chairman

(Thongdee Kijboonchoo, Ph.D.)

_____ Thesis Advisor

(Assistant Professor Sirion Chaipoopirutana, Ph.D.)

_____ External Member

(Associate Professor Wirat Sanguanwongwan)

_____ Member

(Apichart Intravisit, Ph.D.)

_____ Member

(Charnchai Athichitskul, Ph.D.)

ABSTRACT

Due to the increasing awareness and concern of widespread global environmental degradation over the last two decades, the concept of sustainable development has changed people's mind and behaviors. China has been paying a higher ecological price for its rapid economic growth in terms of worsening pollution than many other developed countries. Green products as an eco-friendly concept begin to permeate people's daily life. For this reason, the analysis of consumers' purchase intention of green products has become a subject of the research in attempt to find some differences of consumers who under different context. Previous researches suggested that behaviors are largely influenced by the intention of people. Therefore, this research will concentrate on the purchase intention of collectivistic (Chinese) and individualistic (American) consumers of green products in China.

This research examined the factors influencing Chinese and American consumers' intention to purchase green products. Responses were obtained from 400 consumers in department stores and shopping malls of Shanghai, 200 each of Chinese and American consumers using a self-administered survey of close-ended questions to measure consumers' opinions. And then, using Statistical Product and Service Solutions (SPSS), the results were analyzed using statistical analysis methods based on percentage, mean, standard deviation, Bivariate (Pearson Correlation) and Independent-Samples T Test.

The researcher findings indicated that environmental knowledge, attitudes, and social influence affect Chinese and American consumers' green purchase intention. A better understanding of the relationship between environmental knowledge, environmental concern, attitudes, social influence and green purchase intention of Chinese and American consumers is achieved. Furthermore, findings also indicated there is a significant difference between environmental knowledge and attitudes for the Chinese and the American consumers while there is a significant difference between environmental concern and attitudes for the Chinese and the American consumers.

From these findings, this research has generated some useful implications for the marketers to develop green products market strategies and to promote green products and stimulate the society to advocate and popularized of environmental education. In the further study, the researcher will study other variables, other nationality consumers and other different categories of green products in order to gain deeper insight of research.

ACKNOWLEDGEMENT

Table of Contents

List of Tables

List of Figures

Chapter 1

Generalities of the Study

1.1 Introduction of the Study

It is well recognized that today's world is increasingly shaken by ecological challenges such as the global warming, dwindling non-renewable natural resources, scarcity and lack of water, and other man-made dangers (Herrmann, 2007). With the increasing awareness and concern of widespread global environmental degradation over the last two decades, the concept of sustainable development has changed people's minds and behaviors within the environmentally conscious marketplace (Wang, 2009).

Nowadays, more and more consumers begin to realize that their green purchasing behavior may have many ecological consequences (Laroche et al., 2001). Numerous studies in the area of consumer behavior have engaged in the behavioral decision-making models. The results of these studies stated that an individual who expresses an intention to take action will be more likely to engage in the action than those who have no such an intention (Ajzen, 1991; Hines et al., 1987; Hwang et al., 2000). It was well recognized that the intention contributes a lot in the way to consumers' real action. The initial literature review suggested that there is a paucity of empirical study focusing on the consumers' green purchase intention regarding the green consumption in China (Chan & Lau, 2000). In this sense, more in-depth understanding of the characteristics of the consumers' purchase intention is very important to the green products development in China (Wang, 2009). It is necessary to gain further understanding of consumers' green products purchase intention and factors that may influence the individuals' purchasing behaviors in favor of the green products in China.

However, the consumer green purchasing intention and green consumption behavior study has always been a complex issue because there are many perspectives from which this topic can be analyzed (Fraj & Martinez, 2006).

First of all, researchers may focus on different aspects of factors during the green purchase intention in order to promote the development of eco-friendly products, such as environmental knowledge, attitudes, environmental concern and social influence (Michaelidou & Hassan, 2008; Tan, 2011; Chan et al., 2001). Most of the previous researches investigate these factors that have impacts on the green purchase intention (Chan & Lau, 2000; Byrne, 2001; Fraj & Martinez, 2006; Sutcliffe & Howell, 2008). Hines (1987) considered that main factors influencing the green purchase intention include environmental concern, environmental knowledge such as knowledge of issues (KOI), personality factors, such as attitudes, and social responsibility. Obviously, those studies may provide a valuable foundation for this research on the green purchase intention.

In the same way, results from previous studies on the relationship of environmental knowledge and the green purchase intention make it interesting to investigate the relationship of these two variables (Laroche et al., 2001; Paco & Raposo, 2009; Mostafa, 2007). Mostafa (2007) highlighted the importance of environmental knowledge in the prediction of green consumer behavior. In his research, he discovered that there was a significant relationship between environmental knowledge and green consumer behavior. Therefore, there is possibility that the higher level of environmental knowledge might produces much better pro-environmental acts such as the green purchase intention among the consumers. In general, the behavioral literature reports a positive relationship between knowledge and behavior (Hoch & Deighton, 1989; Park et al., 1994). Manrai et al. (1997) argued that environmental knowledge of a customer has a direct proportional relation with the intention to purchase the products. Chan and Lau (2000) used ecological knowledge as one of their independent variables to predict the green purchase behavior in China; the results showed that Chinese people with more ecological knowledge had a stronger intention to involve in the green purchasing. They stated that both ecological concern and knowledge are important predictors of

2

consumers' green purchase intention; they demonstrated that a strong positive relationship existed between the ecological concern and the green purchase intention. Environmentally concerned persons who believed that pollution was a problem and also had favorable attitudes toward greening environment, were more inclined to purchase green products (Papadopoulos et al., 2009). Kim and Choi (2005) stated that environmental concern had a direct and positive influence on the customer purchasing intention of the green products; they suggested that consumers with strong environmental concern might be interested in consumption of products that reflected that concern; they also pointed out that it was much more probable that people who are highly concerned about environmental issues would purchase eco-friendly products than those who were less concerned.

Lee's (2008) finding on social influence as the top predictor of Hong Kong's young consumers purchasing behavior coincided with Kalafatis et al.'s (1999) finding that social influence most affected UK respondents' intention to buy eco-friendly products. Kalafatis et al. (1999) concluded that social influence had a direct and significant effect on intention. Lee and Green (1991) stated that social influence had a significant impact on behavioral intention.

Paco and Raposo (2009) concluded that consumers were more likely to buy green products if they were more closely involved with the environment. In addition, they also stated that attitudes although not necessarily used by consumers as a base for their green purchase decisions still could impose a strong influence on their green purchases. A study from Mostafa (2007) tested the issue of the green purchase intention among Egyptian consumers and the result showed that consumers' attitudes towards green purchase could influence their green purchase intention and directly affected their actual green purchase behavior. Follow and Jobber (2000) found that the relationships exist from value to attitude to purchase intention and to purchase behavior.

Secondly, with the profound impact of cultural dimension on the personal value of West and Asian countries, their possible influences on the green purchase intention of Western and Asian consumers were also analyzed in this study (Bond, 1996). In this research, the researcher study the green purchase intention of American and Chinese consumers in shopping malls and department stores of Shanghai, because of 1) it is not easy to precisely account for specific factors for all the consumers, since people with different demographic characteristics have distinct characteristics on the environmentally relevant intentions while intending to buy green products; 2) America and China are representative countries, meanwhile, Shanghai is the first international modern city and attracts many foreign investments which America is the largest investor. Yan (2011) stated that green products will have a very broad market prospect in Shanghai in the future; 3) and shopping malls and department stores are consumers' congregate place in general, and consumers can buy many kinds of products in there.

And then, in order to find out the relationship of variables in the green purchase intention of collectivistic and individualistic consumers, and to understand and identify the variables, which can fill up the gap between American and Chinese consumers, the researcher considers doing this study, and examining the relationships between the influencing factors and the intention of the green products purchase.

1.1.2 Research Background

- *Green Products in China*

China is a huge product market, and has the potential to drive the trend of the global market in the future. Currently, China is the world's leader in production and this can have implications for the world's production (Paull, 2008). Many business companies and the retailers all around the world have begun to pay attention to the green marketplace in China (Herrmann, 2007).

Economic growth and the transition to a market economy might explain the significant changes in parts of the Chinese area becoming more sensitive and

4

responsive towards environmental issues such as Shanghai, Beijing, Shenzhen (McEwen et al., 2006). Then, as the green business is now becoming a new trend, green products a far hottest social issue. Therefore, being socially responsible for using green products should be a practice of any companies who wish to sustain a competitive advantage in the business world.

In China, green products as an eco-friendly concept are reportedly welcomed by the green consumers whose purchase behavior is influenced the environmental concerns (Jungbluth et al., 2000). However, not all the consumers would like to take the environmental action to purchase eco-friendly products.

Previous researches suggested that the environmental issues in China are obtaining more and more attention nowadays. However, the attention does not seem to translate into a change in actual consumption behavior (Shrum et al., 1995). A further study on people's purchase intention needs to be done to form the basis of enhancing the actual consumption behavior in the green products market in China. Recently, Chinese consumers have become more aware of the green products; this increase in awareness has translated into the increased perception of the products' importance or changed the purchase intention (Ko, 2005). In 2007, a London-based researching firm found out that 76% of Chinese people expressed their concern about environmental pollution and climatic change and considered purchasing green products (Kwan et al., 2003). Social Survey Institute of China (SSIC) showed some green certification by The China Environmental United Certification Centre (CEC) of the Ministry of Environmental Protection (MEP) of the People's Republic of China in Table 1.1.

Table 1.1: Green Certification Labeling by the China Environmental United Certification Centre (CEC)
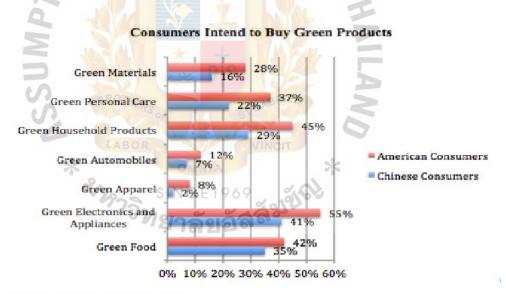
Categories	Green Certification Labeling
Green Food	
Green Building	
Green Energy	

Green Material	

And then, HKTDC Survey reported that Chinese and American consumers had different attitudes toward the intention to buy green products as showed in Figure 1.1.

Figure 1.1: Chinese and American consumers intend to buy green products but with different attitudes.

Consumers Intend to Buy Green Products

	American Consumers	Chinese Consumers
Green Materials	28%	16%
Green Personal Care	37%	22%
Green Household Products	45%	29%
Green Automobiles	12%	7%
Green Apparel	8%	2%
Green Electronics and Appliances	55%	41%
Green Food	42%	35%

Source: HKTDC Survey, 2009

Note: Long Line = American Consumers; Short Line = Chinese Consumers

1.2 Research Objectives

The main objective of this study is to investigate 1) whether the environmental knowledge, environmental concern affect attitudes, 2) the environmental knowledge,

environmental concern, attitudes, and social influence affect green purchase intention and compare the differences in these variables between collectivistic (Chinese) and individualistic (American) consumers. The research objectives are outlined as follows:

Group A

1) To investigate whether environmental knowledge would affect the green purchase intention of the collectivistic (Chinese) consumers;

2) To investigate whether attitudes would affect the green purchase intention of the collectivistic (Chinese) consumers;

3) To investigate whether environmental concern would affect the green purchase intention of the collectivistic (Chinese) consumers;

4) To investigate whether environmental knowledge would affect the attitudes of the collectivistic (Chinese) consumers;

5) To investigate whether environmental concern would affect the attitudes of the collectivistic (Chinese) consumers; and

6) To investigate whether social influence would affect the green purchase intention of the collectivistic (Chinese) consumers.

Group B

7) To investigate whether environmental knowledge would affect the green purchase intention of the individualistic (American) consumers;

8) To investigate whether attitudes would affect the green purchase intention of the individualistic (American) consumers;

9) To investigate whether environmental concern would affect the green purchase intention of the individualistic (American) consumers;

10) To investigate whether environmental knowledge would affect the attitudes of the individualistic (American) consumers;

11) To investigate whether environmental concern would affect the attitudes of the individualistic (American) consumers; and

12) To investigate whether social influence would affect the green purchase intention of the individualistic (American) consumers.

Group C

13) To compare the difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers;

14) To compare the difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers;

15) To compare the difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers;

16) To compare the difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers and

17) To compare the difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

1.3 Statement of Problems

1) *Lack of Awareness and Recognition of Green Products*

The psychology of consumer behavior suggests that consumer awareness is the basis of consumers' willingness to buy (Robinson & Smith, 2002). Only when consumers have heard of a green product may they have the intention to purchase. Thus, better knowledge and attitudes of consumers about the green product is a key to promote people's intention. However, nowadays, consumers have little awareness of the concept of the green products and are usually confused by other types of products. Many consumers cannot distinguish between regular products, natural products, healthy products and green products in China. A survey of Beijing, Shanghai, Tianjin, Guangzhou, Wuhan, Nanjing, Chongqing, Qingdao, Changsha, Nanning and other cities (SSIC, 2008) found that although 53.8% of consumers would like to buy green products, only 37.9% of them are familiar with green products and had purchasing experiences before.

In addition, because of consumers knew little about green products and could

not distinguish their authenticity; they chose to avoid the risk and bought instead the regular products that they knew better. This kind of adverse selection obviously reduced the consumption of the green products and slowed down the development of the whole industry (Qiu & Yang, 2007).

Therefore, consumers' understanding and recognition of the green products to a large extent affect their purchasing intention, and this is arguably one of the main reasons for the depression of the green products market in China.

2) *Lack of Research on Green Products Market and Consumer Intention*

Much of previous research has provided insights into the field of consumers' purchase intention by focusing on different production marketplaces, such as online shopping, organic produce, sustainably produced products, and green purchase (Vijayasarathy, 2004; Michaelidou & Hassan, 2008; Heijden et al., 2003; Chan, 2001). Whereas the systematic investigation of consumers' green products purchase intention in China is virtually non-existent.

Few studies which are related to the research of the green products have focused on the consumers' intention and behavior, but have investigated other aspects, such as the green products marketing strategies, the analysis of the green products development and the policy to improve the development of the green products market (Yang, 2005; Lu, 2005; Paull, 2008; Sanders, 2006).

Moreover, some researchers paid attention to the determinants of Chinese consumers' purchase intention and behavior from very general perspectives, such as green consumption (Chan, 2000; Chan & Lau, 2001). Currently, the product management authorities in China mainly focus on the management and supervision of the green product industries, and little research has been done on evaluating consumer perceptions of the green products and their purchasing intention and behavior (Li, 2008). For this reason, production enterprises usually do not have access to effective information for the market demand of the green products, and do not understand the determinants that influence consumers' purchasing intention. Therefore, it is difficult

to develop an effective marketing strategy. This will certainly affect the further development of the green products market in China.

3) *Difference between Chinese and American Consumers' Perceptions*

According to Chan's (2010) study, the problems of green marketing in China is due to the absence of information on the green purchase intention of consumers, making it difficult for local and international marketers as well as other relevant agencies, to develop their businesses and marketing strategies. Yan (2012) reported that there exist two-thirds of the green market potential buyers in China. American consumers doubt not only the quality but also the very greenness of green products; they trust scientists and environmental groups, not the government, the media, or businesses (Roper, 2007).

Therefore, this study mainly focuses on how Chinese local marketers and international marketers can succeed in acquiring the green purchase intention of consumers with the help of several factors (environmental knowledge, attitudes, environmental concern, and social influence) which may be effectively involved. Besides, this research is also to explore the components that may affect the green purchase intention by solving the problems that might hinder the improvement of the level of green purchase intention. In this study, I propose the following research questions:

Group A

1) Is there a significant relationship between environmental knowledge and the green purchase intention of the collectivistic (Chinese) consumers?

2) Is there a significant relationship between attitudes and the green purchase intention of the collectivistic (Chinese) consumers?

3) Is there a significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers?

4) Is there a significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers?

5) Is there a significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers? and

6) Is there a significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers?

Group B

7) Is there a significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers?

8) Is there a significant relationship between attitudes and the green purchase intention of the individualistic (American) consumers?

9) Is there a significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers?

10) Is there a significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers?

11) Is there a significant relationship between environmental concern and the attitudes of the individualistic (American) consumers? and

12) Is there a significant relationship between social influence and the green purchase intention of the individualistic (American) consumers?

Group C

13) Does any difference exist in environmental knowledge between the collectivistic consumers (Chinese) and the individualistic (American) consumers?

14) Does any difference exist in attitudes between the collectivistic consumers (Chinese) and the individualistic (American) consumers?

15) Does any difference exist in environmental concern between the collectivistic consumers (Chinese) and the individualistic (American) consumers?

16) Does any difference exist in social influence between the collectivistic consumers (Chinese) and the individualistic (American) consumers? and

17) Does any difference exist in green purchase intention between the collectivistic consumers (Chinese) and the individualistic (American) consumers?

1.4 Scope of Research

This study is envisaged as descriptive research employing a questionnaire as a survey instrument to collect data from the collectivistic (Chinese) and individualistic (American) consumers in shopping malls and department stores of Shanghai who never buy green products but intend to buy them. Data were collected from ten branches of shopping malls and department stores in Shanghai. The research model consists of four independent variables and one dependent variable. The four independent variables are environmental knowledge, attitudes, environmental concern and social influence, with the green purchase intention as the dependent variable.

The questionnaire used in this study was adapted from several previous studies. Questions measuring environmental knowledge were adapted from the roles of knowledge, threat, and perceived consumer effectiveness on the green purchase behavior (Tan, 2011). The attitudes questions were adapted from the antecedents and outcomes of consumer eco-friendly attitudes and behavior (Leonidou et al., 2010). The environmental concern questions were adapted from the influence of environmental knowledge and concern about the green purchase intention and the role of attitude as a mediating variable (Aman et al., 2012). The social influence questions were adapted from the factors affecting young consumers to choose the green products (Iravani et al., 2012). Additionally, questions on the green purchase intention were adapted from the determinants of Chinese consumers' green purchase behavior (Chan, 2001).

1.5 Limitation of Research

In this study, the researcher focused on the collectivistic (Chinese) and the individualistic (American) consumers in shopping malls and department stores of Shanghai. Owing to the time and money limitation, the researcher cannot study all independent variables that may affect green purchase intention. So, the researcher has decided to emphasize the relationship between environmental knowledge, attitudes, environmental concern, social influence and the green purchase intention. In addition,

quite a few branches and consumers in China, the study must be limited to these consumers in Shanghai only. However, the researcher studies consumers only in Shanghai areas, so it might not be able to represent the whole perception of other collectivistic and individualistic consumers.

1.6 Significance of Study

The outcome of this study will help Chinese local green firms further understand how the green purchase intention is influenced by environmental knowledge, attitudes, environmental concern and social influence. As a result, these marketers may review their marketing strategies to develop or redesign their products to attract consumers who intend to buy the green products.

Chinese local firms may also benefit from the outcome of this study by better integrating their marketing positioning in the green market to help the firm to get a three in one opportunity and create a completely competitive advantage which consists of low cost strategy, differentiation strategy and focusing strategy (Polonsky & Rosenberger, 2001) in the future.

Profit oriented and socially responsible firms may benefit from this study by adopting the concept of green marketing and addressing the environmental issues as a source of competitive advantage in developing and promoting the green product to meet the demand of environmentally conscious consumers and deliver an effective and persuasive advertisement in their communication strategies.

Foreign firms may benefit as well from this study by deeper understanding of the characteristics of consumers from different cultures and perceptions who intend to buy the green products to the design of more efficient and effective sustainability marketing programs and as well gain useful insights into how they can start and expand their operation into further advancing the idea of the green consumption in China.

1.7 Definition of Terms

Attitudes: A disposition to respond favorably to an object, person, institution or event

14

and it is considered to be a construct of evaluative nature (Ajzen, 1988).

Collectivism: A preference for a tightly knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty (Hofstede, 1980).

Environmental Knowledge: The knowledge on what people know about the environment, key relationships leading to environmental impacts, an appreciation of the "whole system", and collective responsibilities necessary for sustainable development (Mostafa, 2007).

Environmental Concern: The awakening and awareness of consumers in the light of the environment is in danger and those natural resources are limited (Kalafatis et al., 1999)

Green Purchase Intention: The probability and willingness of an individual to give preference to green products over conventional ones in their purchase considerations (Rashid, 2009).

Individualism: A preference for a loosely knit social framework in which individuals are expect to take care of themselves and their immediate families only (Hofstede, 1980).

Social Influence: Changing in an individual's thoughts, feelings, attitudes, or behaviors that results from interaction with another individual or a group (Rachotte, 2005).

Chapter 2

Review of Related Literature and Studies

This chapter consists of three sections of the theory, related review literature and previous studies. The first section is about the theory and definition of each variable according to the conceptual framework. The second section is about related literature review that was stated in the previous studies, and shows the relationship among the variables according to this research's conceptual framework. The third section is about the previous studies, which include a number of studies that variables and other relevant information are applied and the concepts and the relationships among those variables support this research.

2.1 Theories

2.1.1 *Collectivism*

Collectivism represents a preference for a tightly knit framework in society in which individuals can expect their relatives or members of a particular in-group to

look after them in exchange for unquestioning loyalty (Hofstede, 1980). Collectivism is the conviction that an individual has regarding his/her interaction with others and denotes interdependence, group-oriented goals, social hierarchies, in-group harmony, and a low level of competition (Hofstede, 1980; Triandis, 1995). The behavior of the people who are collectivist is usually driven by social norms and willingness to share scarce resources with others (Sinha & Verma, 1987). Collectivistic persons are more likely to develop eco-friendly attitudes because they tend to demonstrate cooperative behavior, offer their help promptly to others, and give priority to the goals of the group rather than their personal goals (Kim & Choi, 2005). In addition, they care about their relationships with others, show concern for the welfare of society, and emphasize the importance of duties and obligations (Hofstede, 1980; Laroche et al., 1999).

In many cases, being collectivism indicates that one may forgo personal motivations (e.g., inconvenience caused by recycling) for those that are good for the group (e.g., keeping the environment clean). Thus, a person who thinks collectively is expected to protect the environment so that the whole society, including him or her, can enjoy prosperity (McCarty & Shrum, 1994). The positive association between collectivistic and eco-friendly attitudes (both inward and outward) was repeatedly confirmed in previous empirical studies (Ling-yee, 1997; Chan, 2001).

The Chinese culture measures very high on the "collectivism" scale along with Japan and Korea compared to most western cultures. This means that the Chinese, in general, is a collective society that strives for harmony and group belonging, whether to family, friends, work, or country (Singh et al., 2005). McCusker and Hui's (1990) study stated that Chinese cultures scored higher on collectivism and lower on individualism.

2.1.2 *Individualism*

Individualism can be defined as a preference for a loosely knit social framework in which individuals are expected to take care of themselves and their

immediate families only (Hofstede, 1980). In general, people from individualistic cultures are more independent and self-oriented (Hofstede, 1980). In contrast, individualism, characterized as a tendency to focus on the self and stress individual rights over duties, may emphasize cost benefit analyses in determining behavior (Triandis, 1994). That is, individualistic people may place greater importance on the relation between their behavior and their own needs than the implications of their behavior for others (Leung & Bond, 1984).

Individualism is the moral stance, political philosophy, ideology, or social outlook that stresses "the moral worth of the individual" (Gregory, 1986). Individualism promote the exercise of one's goals and desires and so value independence and self-reliance while opposing external interference upon one's own interests by society or institutions such as the government (Gregory, 1986).

Individualism makes the individual its focus and so starts "with the fundamental premise that the human individual is of primary importance in the struggle for liberation" (McElroy, 2007). Individualism is thus also associated with artistic and bohemian interests and lifestyles where there is a tendency towards self-creation and experimentation as opposed to tradition or popular mass opinions and behaviors as also with humanist philosophical positions and ethics (Rachels, 2008).

In Hofstede's (1984) study, the United States scored the highest in individualism. His studies have shown that of all the cultures he analyzed, American culture possesses the highest level of individualism. It is the ultimate individualistic culture. This permeates every aspect of American society and is solidly embedded in the country's constitution.

2.1.3 *Environmental Knowledge*

Koellner and Tovar (2009) defined environmental knowledge as the sets of ecological knowledge that individuals have of environmental topics. Chan and Lau (2000) defined environmental knowledge as the amount of knowledge a person has

regarding environmental issues. According to Souza et al.'s (2006) study, environmental knowledge evolved in two forms; that is, 1) consumers have to be educated to be able to understand the impact of a product on the environment; and 2) consumer knowledge in the product itself is produced in an eco-friendly way.

Environmental knowledge referred to one's ability to understand and evaluate the impact of ecosystem on the society, and the amount of knowledge he/she has about environmental issues (Chan, 2001; Haron et al., 2005; Aini et al., 2007). Laroche et al. (2001) defined the environmental knowledge as one's ability to identify or define a number of ecologically related symbols, concepts and behavior. Schahn and Holzer (1990) identified two types of environmental knowledge to examine the environmental behavior, which were namely abstract (knowledge concerning environmental issues, problems, causes, solution) and concrete behavioral knowledge (such as factual knowledge). There were many ways on how consumers seeking for knowledge and evidences suggested that consumers are seeking knowledge by reading product labels (Souza et. al, 2006).

According to them, environmental knowledge is more likely to affect environmental action than factual knowledge. Consistently, Tanner and Kast (2003) reported that the action related knowledge was positively related to green food purchases, whereas factual knowledge was not a predictor of green food purchases. However, Rolston and Benedetto (1994) warned against the use of factual environmental knowledge to predict environmental behavior, because even the experts could not agree on a product's effect on the environment. If the consumer had knowledge about the environmental issues, then their awareness level would increase and thus would, potentially, promote favorable attitudes towards green products (Mostafa, 2007).

Fryxell and Lo (2003) defined environmental knowledge as "a general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems". Hence, it involves public knowledge about the

environment, key relationships concerning environmental facets or impacts, an admiration of entire organisms, and mutual conscientiousness for sustainable development. The customer's level of environmental knowledge about environmental issues, the available substitutes and solutions to these problems are another factor, which has at times proven to affect the consumer's behavior.

2.1.4 *Attitudes*

'Attitude' represents a disposition to respond favorably to an object, person, institution or event and it is considered to be a construct of evaluative nature (Ajzen, 1988). According to Amstrong and Kotler's (2009) study, 'attitude' is a person's consistently favorable or unfavorable evaluations, feelings, and tendencies toward an object or idea. Kassarjian (1971) stated that consumers' attitude was a determining factor to predict whether they can be involved in the protection activities against air pollution. Walsh and McGuire (1992) pointed out that consumers' attitudes would directly lead to energy conservation and ecologically conscious purchase. Balderjahn (1988) concluded that a positive attitude toward environmental issue would result in an ecological responsibility to execute more pro-environmental behavior.

Attitudes towards the behavior refer to one's beliefs or feelings towards the impacts of undertaking a specific behavior on the environment (Kaiser & Gutsche, 2003; Riethmuller & Buttriss, 2008). It is important to distinguish between attitudes towards the environment (general attitude) and attitude towards a specific type of environmental behavior (specific attitude) as this distinction is a major reason leading to attitude-and-behavior gap (Kaiser et al., 1999; Bamberg, 2003). In terms of its measurement scale, it is unlike the New Environmental Paradigm Scale (NEP) or revised NEP; the measurements of consumer's attitudes towards a specific environmental behavior differ according to the interests of researchers. However, the concept of "importance" and "inconvenience" are the most studied attitudes in the ecological literature (Laroche et al., 2001).

Researchers have investigated the effects of 'attitude' towards the "importance

of recycling" and "inconvenience of recycling" on the recycling behavior (Shrum, 2001). Besides, how consumers view eco-friendly behaviors as important to themselves or society as a whole will certainly affect their willingness to pay more for the green products (Laroche et al., 2001).

2.1.5 *Environmental Concern*

Environmental concern is a strong attitude towards preserving the environment (Cosby et al., 1981). Based on Dunlap and Van's research (1978), environmental concern is also defined as a global attitude with indirect effects on behavior through behavioral intention. Environmental concern is also sometime known as "ecological concern", which refers to the degree of emotionality, the amount of specific factual knowledge, and the level of willingness as well as the extent of actual behavior on pollution-environmental issues (Maloney & Ward, 1973).

Mat Said, et al. (2003) defined environmental concern as a belief, stance and the degree of concern an individual holds towards the environment. Diamantopoulos, et al.'s (2003) study referred that environmental concern as a major factor in the consumer decision-making process. Chan and Lau (2000) stated environmental concern refers to the degree of emotionality to which a person is attached to environmental issues. Dunlap and Jones (2002) defined environmental concern as the degree to which people are aware of environmental problems and struggles to solve them or signify the readiness to contribute personally to their solution. In literature, it is almost commonplace that people are definitely concerned about environmental problems. As a result, it is not the weakness of environmental concern, but some other factors that hamper them in undertaking eco-friendly behavior. Prothero and McDonagh (1992), and Seguin et al., (1998) concluded that the environmental concerns could obviously influence the degree of individual's readiness to change his/her behavior.

According to Lee's (2008) study, environmental concern is the consumers' emotional involvement regarding different environmental matters. As to Yeung's

(2004) study, environmental concern represents a consumer's doubts, fears, likes or dislikes and sympathy regarding the environment and its quality. Environmental concern is what interests us about the environment because of the affection and anxious feelings it carries for the self. Environmental concern holds three interrelated issues: concern for the biosphere, concern for the people, and concern for the self (Schultz, 2000). However, it is not necessarily for an individual to behave or purchase green if he/she is concerned for the environment, identified as the value-action gap (Pickett-Baker & Ozaki, 2008).

2.1.6 *Social Influence*

Changing in an individual's thoughts, feelings, attitudes, or behaviors that results from interaction with another individual or a group (Rachotte, 2005). According to Kalafatis et al.'s (1999) study, a social norm is whether an action should or should not be performed by a respondent in a referent's point of view. Referents could be friends, neighbors, not for profit or for profit organizations, teachers, parents, etc. Social influence is a proxy of subjective norm. This study is using friends as referents and this is reflected in the questionnaire under social influence in the context of this study. Lee's (2008) finding on social influence as the top predictor of Hong Kong's young consumers purchasing behavior coincides with Kalafatis et al.'s (1999) finding that social norms influence the most on UK respondents' intention to buy eco-friendly products. Kalafatis et al. (1999) concluded that a social norm has a direct and significant effect on intention. Lee and Green (1991) stated that social norm has a significant impact on behavioral intention. Lee (2008) found out that peer influence was the most important factor for Hong Kong's adolescents' green purchasing behavior compared to other factors.

Social influence is a very wide field to study. Social influence can be found within peer pressure, conformity compliance, and many others (Dagher et al., 2012). Ewing (2001) suggested that norms acquired socially could stimulate ecological consumer behavior. With the ease to share information using different channels of

social networking as Facebook, Twitter, MSN and Yahoo, it is strongly obvious that social influence will be a dominant factor affecting the green purchasing intention (Dagher et al., 2012).

2.1.7 *Green Purchase Intention*

According to Rashid's (2009) study, the green purchase intention is defined as "the probability and willingness of a person to give preference to products having eco-friendly features over other traditional ones in their purchasing considerations". The green purchase intention is conceptualized as the probability and willingness of a person to give preference to products having eco-friendly features over other traditional ones in their purchase considerations (Ail & Ahmad, 2012).

According to Beckford et al.'s (2010) and Chan's (2001) research studies, the green purchase intention is a significant predictor of green purchase behavior, which means that the purchase intention is positively affecting the probability of a customer's decision as to whether he will buy green products. Chan and Lau (2002) conducted a cross-cultural research study in China and America; consumers in Shanghai and Los Angeles were surveyed, concluding that the asymmetric influence of the green purchasing intention on green purchasing behavior warrants further attention.

2.2 Relationship of the Independent Variables to the Dependent Variable

2.2.1 *Relationship between Environmental Knowledge and Green Purchase Intention*

An important component of environmental conscious consumer behavior is to increase the knowledge about products and the environment. This increased awareness of "green" knowledge has been shown to influence consumers' purchasing decisions (Bazoche et al., 2008; Loureiro, 2003). Americans have begun to develop an environmentally conscious mind-set, with half saying they do not have the information needed to be involved in increasing green behavior and are less

knowledgeable about which products and packaging materials are recyclable (GFK, 2007). Bazoche et al. (2008) and Loureiro (2003) noted that attempts to explain purchase behavior are associated with a consumer's knowledge of green issues. Although difficult to verify, consumers that are knowledgeable about the environment will be motivated toward eco-friendly purchase behavior.

According to Kaplan's (1991) study, the stated that consumer's knowledge about an issue impacts significantly upon decision-making. Rahbar and Tan (2011) found that environmental knowledge has a significant influence on the green purchase behavior of Penang green volunteers. Chan and Lau (2000) used ecological knowledge as one of their independent variables to predict the green purchase behavior in China; the results showed that Chinese people with more ecological knowledge had stronger intention to involve in green purchasing.

In addition, Manrai et al. (1997) argued that environmental knowledge of a customer has a direct proportional relation with the intention to purchase the products, having green claims. Therefore, managers may find the way to translate environmental issues into higher sales of green products (Manrai et al., 1997). Perhaps, the initial perception is that one forms about a product environmental benefit, in some way, by exposure to information or knowledge commenced by the marketer together with the information provided on product labels and media advertising (Manrai et al., 1997).

2.2.2 Relationship between Attitudes and Green Purchase Intention

Hoyer and MacInnis (2004) found out that attitudes affect people's purchasing behavior by affecting people's thoughts and feelings. Kotchen and Reiling (2000) found a positive relation between the green purchase intention and attitudes. Schlegelmilch et al. (1996) found out that attitudinal component was observed to be the most important predictor of green purchase decisions. Leonidou et al. (2010) reported that attitudes toward green purchase will stimulate green purchasing intention.

2.2.3 Relationship between Environmental Concern and Green Purchase Intention

A study conducted by Fraj et al. (2009), emphasized that many consumers are more worried about environmental problems, and those organizations that do not take actions to confront the environmental issue by offering green products, will possibly lose credibility in the eyes of their consumers.

According to Laskova's (2007) study, people with high environmental concerns shows the more positive attitude towards the environment than people who think of themselves to be powerless to help the environment and are less likely to participate in pro-environmental activities. This argument is further substantiated by the study of Kim and Choi (2005), where environmental concerns have a direct and positive influence on the customer purchasing intention of the green products. This suggested that consumers with strong environmental concern might be interested in consumption of products that reflect that concern.

Besides, Mostafa (2007) highlighted the importance of environmental concern along with other variables for the prediction of consumer green purchase behavior; he added that based on environmental concerns one can differentiate between green consumers and non-green consumers. To sum, while consumers' ecological concerns have moved in to middle-of-the-road marketing, it is useful for a marketplace viewpoint to examine how consumers make well-versed choices about eco-friendly products.

2.2.4 Relationship between Environmental Knowledge and Attitudes

There is always an assumption in the environmental studies that the increasing level of environmental knowledge will increase environmental concern and thereby increase green consumption (Oskamp, et al., 1991). Arcury (1990) reported a significant relationship between environmental knowledge and environmental attitudes. In addition, Sharifahet et al. (2005) conducted a study in Malaysia that

indicated that environmental knowledge was significant and correlated positively with environmental attitudes. Besides, the knowledge about the environmental issues was significantly associated with both of environmental concern constructs both personally and socially (Bedrous, 2007). Moreover, a positive correlation between eco-literacy and green purchase attitudes was found in Cheah and Phau's (2006) as well as in Yeoh and Paladino's (2007) studies.

2.2.5 *Relationship between Environmental Concern and Attitudes*

Environmental concern will affect the extent of his/her environmental attitude, and environmental attitude will influence his/her green lifestyle attitude, and to the green lifestyle a positive attitude toward people will participate in the green product purchase and consumption activities (Borchardt, 1999). Research on consumer's attitudes towards products has produced inconsistency results in the analyses (Aman et al., 2012). In spite of this, the literatures suggest conflicting evidence on the influence of 'attitude' on behavior; attitudinal component is observed to be the most important predictor of green purchasing decision (Schlegelmilch et. al, 1996). Straughan and Roberts (1999) claimed that if a person is environmentally concerned, that person is unlikely to be more proactive in his/her attitude unless that person would feel to be involved. Han et al.'s (2009) study showed that consumers who concern for the environment would have favorable attitudes towards eco-friendly products or services.

2.2.6 *Relationship between Social Influence and Green Purchase Intention*

The social influence can be known as situations where individuals share the same values, thoughts and beliefs which the person that they are communicating with green purchase decision (Punitha & Azmawani, 2011). The same result was obtained by Lee's (2008) study in which the social influence was the most important factor for

Hong Kong's adolescents' green purchasing behavior, when compared to other factors. Social influence on purchase decision plays significant role in consumer behavior.

Consumers' green buying decision depends on the information they collect from various sources in a society. There are different sources of information provider in a society, among them reference groups play major role that affect Malaysian consumers involvement in green purchase situation (Bearden & Etzel, 1982). Another study conducted by Feick et al. (2003) suggested social network and product involvement are co-related. Young consumers are greatly influenced by their social network that they maintain (e.g. family, friends, coworker, etc.). Initially, they collect information from their social network and finally they decide about their brand choice.

2.3 Previous Studies

In the previous empirical research data were collected. They utilized the secondary data for their studies. This study related to environmental knowledge, attitudes, environmental concern, social influence and green purchase intention.

Tan (2011) studied the determinants of green purchase behavior in order to develop effective communication messages and derive green purchase commitments. The effects of environmental knowledge, environmental threats and perceived consumer effectiveness in motivating one's behavioral change to engage in pro-environmental behavior had been tested in the past. The finding is expected to provide guidance for firms to profile the green buyers and position their green products more effectively. The aim of this study is to motivate the behavioral change of consumers to shift from buying conventional products to eco-friendly products, and advertising messages need to be convincing enough to arouse the green purchase actions and commitment.

Chan's (2001) study examined the influence of various cultural and psychological factors on the green purchase behavior of Chinese consumers. The survey results were obtained in two major Chinese cities, providing reasonable

support for the validity of the proposed model. Specially, the findings of 549 respondents from the structural-equation modeling confirmed the influence of the subjects' man & nature orientation, degree of collectivism, ecological effects, and marginally, ecological knowledge, on their attitudes toward green purchase. Their attitudes toward green purchases, in turn, are also seen to affect their green purchase behavior via the mediator of the green purchase intention. These are the exact roles of ecological knowledge in the Chinese consumers' green purchasing process and the underlying factors that account for their low level of green purchase.

Leonidou et al. (2010) studied the antecedents and outcomes of consumer eco-friendly attitudes and behavior. This paper presents the results of a study conducted among 500 Cyprus's consumers who aged 15, focusing on the factors that shape consumer environmental attitudes and behavior, as well as on the resulting outcomes. The findings confirmed that both the inward and outward environmental attitudes of a consumer are positively influenced by his/her degree of collectivism, long-term orientation, political involvement, deontology, and law obedience, but have no connection with liberalism. The findings of the study have important implications for shaping effective company offerings to consumers in target markets.

Aman et al. (2012) aimed to investigate the influence of environmental knowledge and concern on the green purchase intention among consumers, and simultaneously examining the effect of attitudes as a mediator. The Theory of Reasoned Action (TRA) was used to gauge consumer's green purchase intention. The current study investigates green products in general with no focus on other specific types of green products. Data were collected through questionnaires and obtained from 384 Sabahan consumers, and this was done by means of the convenience sampling approach. The findings of this study signify that environmental knowledge and environmental concern significantly influenced the green purchase intention among consumers. More importantly, 'attitude' is found to have a partial mediation effect on the relationship between environmental concern and green purchase

intention. From the results, environmental knowledge, environmental concern, and attitude were found to enhance the explanation of the TRA, specifically in predicting consumer green purchase intention.

Ali et al. (2011) examined Pakistani consumers' intention to buy eco-friendly products. The primary focus of this research was to examine and investigate the hypothesized relationship between the green purchase attitude and the green purchase intention. The second was to determine the relationship of the green purchase intention and green purchase behavior. Finally, the third objective was to ascertain the moderating effect of the perceived product price and the quality between the green purchase intention and green purchase behavior. The target population for this study who are the undergraduates, graduates and postgraduates. The sample consisted of 400 participants from International Islamic University Islamabad, Muhammad Ali Jinnah University, Quaid-e-Azam University Islamabad and Foundation of Applied Science and Technology of Rawalpindi and Islamabad and convenience random sampling was used. The results from this study showed that consumers were ready to buy green products more often, but as far as the price and quality is concern, green products must perform competitively just like traditional products.

Iravani et al. (2012) examined the factors affecting young consumers to choose green products. Findings from 310 samples from UTM and MMU of the research were explored, demonstrating that all the adopted variables, namely consumer beliefs, social influence, environmental attitude, and perceived quality of green product significantly and positively influence the green purchasing intention of young Malaysian consumers and are considered as significant predictors. The result found out that high perceived quality of the products needs to be considered while marketers are developing the proper marketing strategies and other factors related to the construct and the purchase intention and product involvement would assist marketing managers in expanding more effective marketing mixes while the quality of the product is more under the control of the business.

Ali and Ahmad's (2012) study examined the influence of various factors on the green purchase intentions of Pakistani consumers. The findings from 400 responders from International Islamic University Islamabad, Muhammad Ali Jinnah University, Fast National University and Quaid-e-Azam University Islamabad of Rawalpindi and Islamabad confirm the influence of organization's green image (OGI), environmental knowledge (EK), environmental concern (EC) and perceived product price and quality (PPP & Q) on consumers purchase intentions toward green products. The OGI, EK and EC, in turn, also seem to affect consumers green purchase intentions via the moderating role of PPP & Q of a green product. This is the significant moderating role of PPP & Q variables in consumers' green purchasing process. The findings suggested that respondents have a high positive attitude toward green products and are ready to buy green products more often.

Perrea et al.'s (2011) study examined the degree to which attitudes towards green food is determined by consumers' values and their general attitudes towards environment and nature and technological progress. The link between collectivism, attitudes towards environment and nature, and attitudes towards green food is the strongest link of the hierarchical model. However, collectivism also influences attitudes towards technological progress, which in turn influence attitudes towards green food. The finding from 479 respondents, coupled with the lack of significant relationships between individualism and attitudes towards technological progress point towards the conclusion that the belief of Chinese people that technology is a positive determinant of food safety and eco-friendly in food production from altruistic predispositions, which, in turn, positively influence Chinese consumers' attitudes towards technology.

Chapter 3

Research Frameworks

This chapter consists of four sections. The first section explicates the theoretical framework that was applied from the researches related to green purchase behavior and its antecedents. The second section explicates the conceptual framework of this research. The third section is the research hypotheses. The researcher illustrates the relationship between collectivistic, environmental attitude, environmental knowledge, environmental concern, social influence and green purchase intention in the conceptual framework and develops the seven research hypotheses. The last section delineates the operationalization of the variables, which consists of variables, concept of variables, operationalization of components, and scale of measurement.
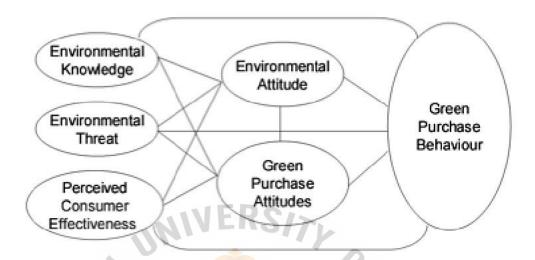
3.1 Theoretical Framework

The researcher modified the conceptual framework based on seven major research models.

The first research model was developed by Tan (2011), who studied the roles of knowledge, threats, and perceived consumer effectiveness on green purchase behavior. The second research model was developed by Chan (2001), who studied determinants of Chinese consumers' green purchase behavior. The third research model was developed by Leonidou et al. (2010), who studied about antecedents and outcomes of consumer eco-friendly attitudes and behavior. The fourth research model was developed by Aman et al. (2012), who studied the influence of environmental knowledge and concern on green purchase intention and the role of attitude as a mediating variable. The fifth research model was developed by Ali et al. (2011), who studied determinants of Pakistani consumers' green purchase behavior: some insights from a developing country. The sixth research model was developed by Iravani et al. (2012), who studied factors affecting young consumers to choose green products. The seventh research model was developed by Ali and Ahmad (2012), who studied factors that influenced the green purchase intention of Pakistani consumers. The last research model was developed by Perrea et al. (2011), who studied consumers' attitudes towards green food production in China. All details are as follows:

Research Model 1: A study on the roles of knowledge, threat, and perceived consumer effectiveness on green purchase behavior.

Figure 3.1: The Research Model of integrated Effects on Factors to explain Attitudes and Behavior in the Context of Green Purchase Behavior
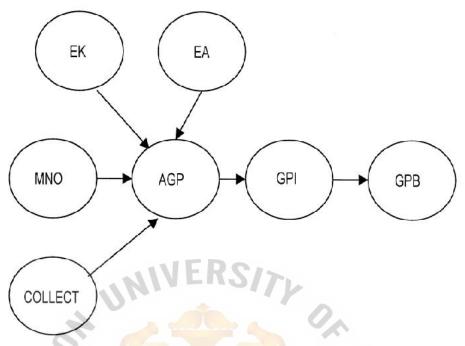
Source: Tan, C. B. (2011). Explaining the roles of knowledge, threat, and perceived consumer effectiveness on green purchase behavior. *International Journal of Business and Management*, 6 (12), 14-27.

Tan (2011) studied the determinants of green purchase behavior in order to develop effective communication messages and derive green purchase commitments. The effects of environmental knowledge, environmental threat and perceived consumer effectiveness in motivating one's behavioral change to engage in pro-environmental behavior had been tested in the past. The finding is expected to provide guidance for firms to profile the green buyers and position their green products more effectively. The aim of this study is to motivate the behavioral change of consumers to shift from buying conventional products to eco-friendly products, and advertising messages need to be convincing enough to arouse the green purchase actions and commitment.

Research Model 2: A study of determinants of Chinese consumers' green purchase behavior.

Figure 3.2: The Research Model of the Factors affects Green Buying Behavior

Note: EA = Ecological Affect; EK = Ecological Knowledge; MNO = Man-nature Orientation, COLLECT = Collectivism; AGP = Attitudes toward green purchase; GPI = Green Purchase Intention; GPB = Green Purchase Behavior

Source: Chan, R. Y. K. (2001). Explaining the determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing,* 18(4), 389-413.

Chan's (2001) study examined the influence of various cultural and psychological factors on the green purchase behavior of Chinese consumers. The survey results were obtained in two major Chinese cities, providing reasonable support for the validity of the proposed model. Specifically, the findings of 549 respondents from the structural-equation modeling confirmed the influence of the subjects' MNO, degree of collectivism, EA, and EK on AGP. Their attitudes toward green purchases, in turn, are also seen to affect their green purchase behavior via the mediator of the green purchase intention. These are the exact roles of ecological knowledge in the Chinese consumers' green purchasing process and the underlying factors that account for their low level of green purchase.

Research Model 3: A study on the antecedents and outcomes of consumers' eco-friendly attitudes and behavior.

33
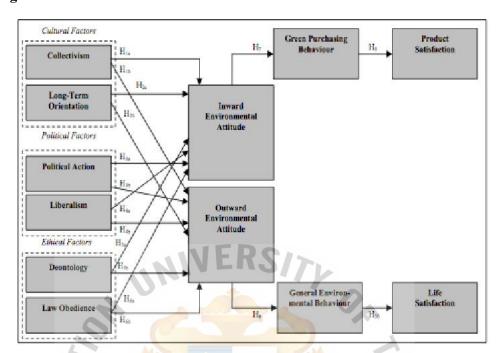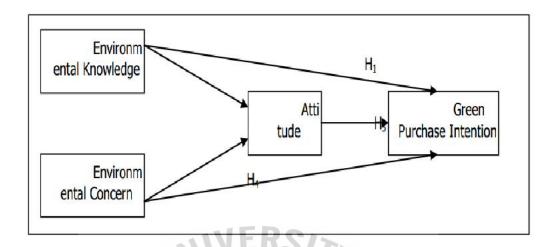
Figure 3.3: The Research Model of Antecedents of Environmental Attitudes

Source: Leonidou, C. L., Leonidou, N. C. and Kvasova, O. (2010). Explaining the antecedents and outcomes of consumers' eco-friendly attitudes and behavior. *Journal of Marketing Management*, 1-39.

Leonidou et al. (2010) studied the antecedents and outcomes of consumer eco-friendly attitudes and behavior. This paper presents the results of a study conducted among 500 Cyprus's consumers who aged 15, focusing on the factors that shape consumers' environmental attitudes and behavior, as well as on the resulting outcomes. The findings confirmed that both the inward and outward environmental attitudes of consumers are positively influenced by their degree of collectivism, long-term orientation, political involvement, deontology, and law obedience, but have no connection with liberalism. The findings of the study have important implications for shaping effective company offerings to consumers in target markets, as well as formulating appropriate policies at the governmental level to enhance environmental sensitivity among citizens.

Research Model 4: A study on the influence of environmental knowledge and concern on green purchase intention, the role of attitude as a mediating variable.

Figure 3.4: The Research Model for the TRA (Theory of Reasoned Action)
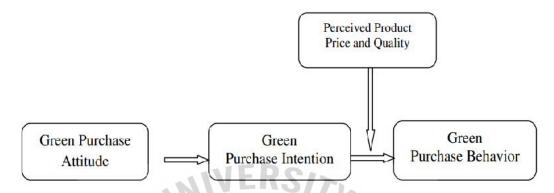
Source: Aman, L. H. A., Harun, A., and Hussein Z. (2012). Explaining the influence of environmental knowledge and concern on green purchase intention the role of attitude as a mediating variable. *British Journal of Arts and Social Sciences*, 7 (2), 145-167.

Aman et al.'s (2012) study aimed to investigate the influence of environmental knowledge and concern on the green purchase intention among consumers, and simultaneously to examine the effect of attitudes as a mediator. The Theory of Reasoned Action was used to gauge consumer's green purchase intention. The current study investigates green products in general without any focus on other specific types of green products. Data were collected through questionnaires was obtained from 384 Sabahan consumers, and this was done by dint of a convenience sampling approach. The findings of this study signified that environmental knowledge and environmental concern significantly influenced the green purchase intention among consumers. More importantly, 'attitude' is found to have a partial mediating effect on the relationship between environmental concern and the green purchase intention. From the results, environmental knowledge, environmental concern, and attitude were found to enhance the explanation of the Theory of Reasoned Action, specifically in predicting consumer green purchase intention.

Research Model 5: A study on the determinants of Pakistani consumers' green purchase behavior: some insights from a developing country.

Figure 3.5: The Research Model of Green Purchase Behavior of Pakistani Consumers
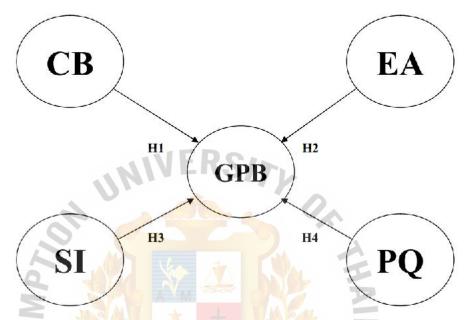
Source: Ali, A., Kan, A. A., Ahmed I. and Shahzad W. (2011). Explaining the determinants of Pakistani consumers' green purchase behavior: some insights from a developing country. *International Journal of Business and Social Science*, 2 (3), 217-226.

Ali et al.'s (2011) study examined Pakistani consumers' intentions to buy eco-friendly products. The primary focus of this research was to examine and investigate the hypothesized relationships between green purchase attitude and green purchase intention. The second was to determine the relationship of the green purchase intention and the green purchase behavior. Finally, the third objective was to ascertain the moderating effect of the perceived product price and the quality between green purchase intention and green purchase behavior. The target population for this study who the undergraduates, graduates and postgraduates. The sample consisted of 400 participants from International Islamic University Islamabad, Muhammad Ali Jinnah University, Quaid-e-Azam University Islamabad and the Foundation of Applied Science and Technology of Rawalpindi and Islamabad and convenience random sampling was used. The results from this study showed that consumers were ready to buy green products more often, but as far as the price and quality is concern, green products had to perform competitively just like the traditional products.

Research Model 6: A study on the factors affecting young consumers to choose green products.

Figure 3.6: The Research Model showed Green Purchasing Behavior among Young Malaysian Consumers
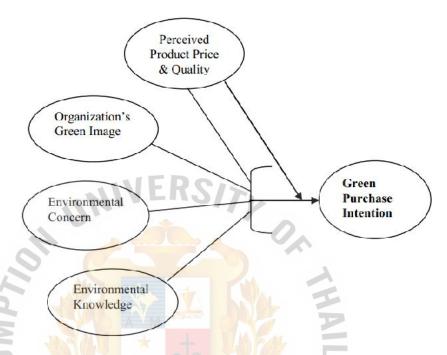
Source: Iravani, R. M., Zadeh, S. M., Forozia, A., Shafaruddin, N. and Mahroeian, H. (2012). Explaining the factors affecting young consumers to choose green products. *Journal of Basic and Applied Scientific Research,* 2 (6), 5534-5544.

Iravani et al.'s (2012) study examined the factors affecting young consumers to choose green products. Findings from 310 samples from UTM and MMU of the research were explored, demonstrating that all the adopted variables, namely consumer beliefs, social influence, environmental attitude, and perceived quality of green product significantly and positively influence the green purchasing intention of young Malaysian consumers and are considered as significant predictors. The result showed that high perceived quality of the products need to be considered while marketers are developing the proper marketing strategies and other factors related to the construct and the purchase intention and product involvement would assist marketing managers in expanding more effective marketing mixes while the quality of the product is more under the control of the business.

Research Model 7: A study on the factors that influence the green purchase intention of Pakistani consumers.

Figure 3.7: The Research Model of Green Purchase Intention of Pakistani Consumers
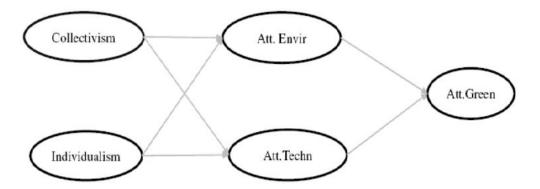
Source: Ali, A. and Ahmad, I. (2012). Explaining eco-friendly products: factors that influence the green purchase intentions of Pakistani consumers. *Pak. J. Eng. Technol. Sci.,* 2 (1), 84-117.

Ali and Ahmad's (2012) study examined the influence of various factors on the green purchase intention of Pakistani consumers. The findings from 400 responders from International Islamic University Islamabad, Muhammad Ali Jinnah University, Fast National University and Quaid-e-Azam University Islamabad of Rawalpindi and Islamabad confirmed the influence of OGI, EK, EC and PPP & Q on consumers purchase intentions toward green products. The findings suggested that respondents have a high positive attitude toward green products and are ready to buy green products more often, but as far as the product price and quality are concerned, green products must perform competitively just like the traditional products.

Research Model 8: A study on the consumers' attitudes towards green food production in China: A test of the values-attitudes hierarchy.

Figure 3.8: The Research Model of Attitude towards Green Food Production in China

Source: Perrea, T., Grunert, K., Krystallis, A., and Zhou, Y. (2011). Explaining consumers' attitudes towards green food production in China. *EAAE 2011 Congress Change and Uncertainty*, 2-14.
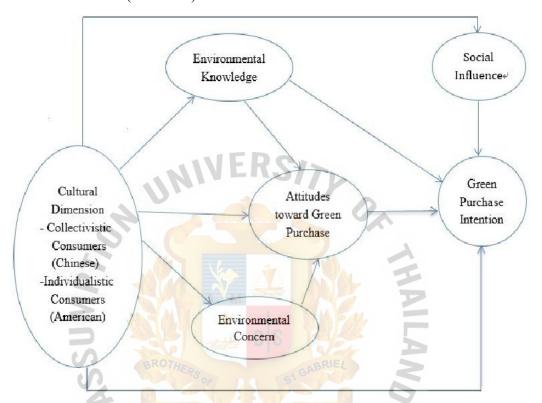
Perrea et al.'s (2011) study examined the degree to which attitudes towards green food is determined by consumers' values and their general attitudes towards environment and nature and technological progress. The link between collectivistic, attitudes towards environment and nature, and attitudes towards green food is the strongest link of the hierarchical model. However, collectivism also influences attitudes towards technological progress, which in turn influence attitudes towards green food. The finding from 479 respondents, coupled with the lack of significant relationships between individualistic and attitudes towards technological progress point towards the conclusion that the belief of Chinese people that technology is a positive determinant of food safety and environment friendliness in food production from altruistic predispositions, which, in turn, positively influence Chinese consumers' attitudes towards technology.

3.2 Conceptual Framework

With references to the foregoing literature review, an original conceptual model is proposed in Figure 9 to explain consumers' green purchase behavior. In this study, the researchers examine the relationship between environmental knowledge, attitudes toward green purchase, environmental concern, and social influence toward the green purchase intention of collectivistic (Chinese) consumers and individualistic
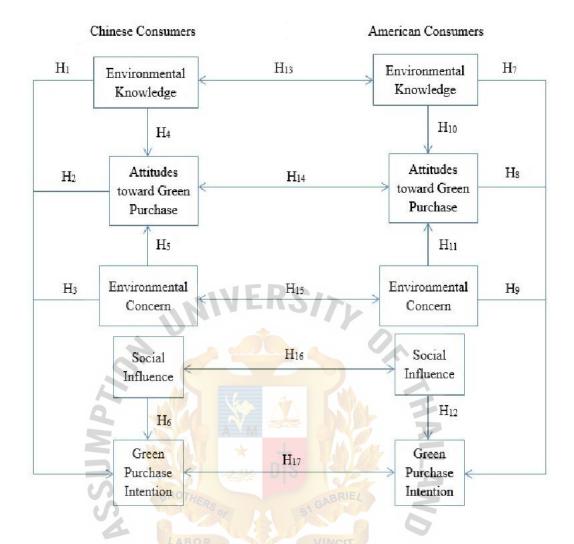
(American) consumers in different department stores in Shanghai. The conceptual framework is shown below:

Figure 3.9: The Conceptual Framework of Variables between Collectivistic (Chinese) and Individualistic (American) Consumers

However, based on Figure 3.9, the researcher aims to study the difference between collectivistic (Chinese) and individualistic (American) consumers toward green purchase intention as a major study and study all variables of each group. Thus, the researcher develops a new model in Figure 3.10, which is easy to understand clearly on the part of all readers.

Figure 3.10: The New Conceptual Model of Variables between Collectivistic (Chinese) and Individualistic (American) Consumers

Chinese Consumers   American Consumers

3.3 Research Hypothesis

According to the objectives of this study, the researcher aims to study three groups: in Group A to find the relationship of the variables in the green purchase intention of collectivistic (Chinese) consumers; in Group B to find the relationship of the variables in the green purchase intention of individualistic (American) consumers; and in Group C to compare the study of the green purchase intention between collectivistic (Chinese) consumers and individualistic (American) consumers.

The research hypotheses are stated into two forms: null (H_o) and alternative (H_a) hypotheses. The objective of this hypothesis testing is to determine which of the two hypotheses is applicable and can answer the specific questions from the research (Gay & Diehl, 1996). All details are as follows:

41

Group A: To find the relationship of the variables in the green purchase intention of the collectivistic (Chinese) consumers.

H_{1o}: There is no significant relationship between environmental knowledge and the green purchase intention of collectivistic (Chinese) consumers.

H_{1a}: There is a significant relationship between environmental knowledge and the green purchase intention of the collectivistic (Chinese) consumers.

H_{2o}: Collectivistic (Chinese) consumers' attitudes are not correlated with the green purchase intention.

H_{2a}: Collectivistic (Chinese) consumers' attitudes are correlated with the green purchase intention.

H_{3o}: There is no significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.

H_{3a}: There is a significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.

H_{4o}: There is no significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.

H_{4a}: There is a significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.

H_{5o}: There is no significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.

H_{5a}: There is a significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.

H_{6o}: There is no significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.

H_{6a}: There is a significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.

Group B: To find the relationship of variables in the green purchase intention of the individualistic (American) consumers.

H_{7o}: There is no significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers.

H_{7a}: There is a significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers.

H_{8o}: Individualistic (American) consumers' attitudes are no correlated with the green purchase intention.

H_{8a}: Individualistic (American) consumers' attitudes are a correlated with the green purchase intention.

H_{9o}: There is no significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.

H_{9a}: There is a significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.

H_{10o}: There is no significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.

H_{10a}: There is a significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.

H_{11o}: There is no significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.

H_{11a}: There is a significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.

H_{12o}: There is no significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.

H_{12a}: There is a significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.

Group C: To compare difference in the green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{13o}: There is no significant difference in environmental knowledge between the collectivistic (Asian) and the individualistic (American) consumers.

H_{13a}: There is a significant difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{14o}: There is no significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{14a}: There is a significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{15o}: There is no significant difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{15a}: There is a significant difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{16o}: There is no significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{16a}: There is a significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{17o}: There is no significant difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{17a}: There is a significant difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

3.4 The Operationalization of the Variables

Cooper and Schindler (1998) defined operation definition as a definition stated in terms of specific testing criteria or operations that must specify the characteristic to study and how they are observed. With the construction of actual definition and specific techniques of measurement, the desired results will be obtained. There is four independent variables and one dependent variable explained in Table 3.1.

Table 3.1: Operationalization of Dependent and Independent Variables

Concept	Conceptual	Operational Components	Level of

	Definition		Measurement
Environmental Knowledge	The knowledge on what people know about the environment, key relationships leading to environmental impacts, an appreciation of the "whole system", and collective responsibilities necessary for sustainable development (Mostafa, 2007).	Q4: Humans must live in harmony with nature in order to survive. Q5: Synthetic pesticide takes long time to deteriorate into harmless chemicals. Q6: I am very knowledgeable about environmental issues. Q7: The earth is like a spaceship with only limited room and resources. Q8: Mankind is severely abusing the environment. Q9: When humans interfere with nature, it often produces disastrous consequences.	Interval Scale

Attitudes	A disposition to respond favorably to an object, person, institution or event and it is considered to be a construct of evaluative nature (Ajzen, 1988).	Q10: Citizens should recycle their household waste. Q11: It is essential to promote green living in the world. Q12: More environmental protection work is needed in the world. Q13: I think it is meaningful to protect environment. Q14: It is wise for each country to spend a vast amount of money on promoting environmental protection. Q15: I understand the environmental phrases and symbols on product's package. Q16: Green product is a good idea. Q17: I have a favorable attitude towards a green version of a product.	Interval Scale

		Q18: I am very concerned about the environment. Q19: I would be willing to reduce my consumption to help protect the environment. Q20: I would give part of my own money to help protect wild animals.	
Environmental Concern	The awakening and awareness of consumers in the light of the environment is in danger and those natural resources are limited (Kalafatis et al., 1999)	Q21: I am extremely worried about the world's environment and what it will mean for my future. Q22: I think that much of the food I eat is contaminated with pesticides. Q23: I think that humans don't have the right to modify the natural environment to suit their needs.	Interval Scale

Social Influence	Changing in an individual's thoughts, feelings, attitudes, or behaviors that results from interaction with another individual or a group (Rachotte, 2005).	Q24: I often share information regarding green products with my friends. Q25: I pay attention to environmental messages in advertisements. Q26: I watch TV programs that are devoted to environmental topics/issues. Q27: Major social changes are necessary to the protection of the natural environment. Q28: Anti-pollution laws should be enforced more strongly. Q29: I read magazines/newspapers that have environmental topics/issues. Q30: My friends often discuss environment related topics/issues with me. Q31: My parents/friends support me to buy green products.	Interval Scale

Green Purchase Intention	The probability and willingness of an individual to give preference to green products over conventional ones in their purchase considerations. (Rashid, 2009).	Q32: When I have to choose between two equal products, I intend to buy the one less harmful to other people and the environment. Q33: I intend to buy eco-friendly products in the future. Q34: I intend to buy products that are made from recycled materials. Q35: I intend to switch products for ecological reasons. Q36: When I intend to buy green products, I will consider whether their advertisements are also green. Q37: When I intend buy green products, I will consider whether their producing process is also green. Q38: When I intend to buy green products, I will consider whether their package is also green. Q39: When I intend to buy green products, I will consider their price.	Interval Scale

Chapter 4
Research Methodology

This chapter explains how this research is administered and the research methodology, including the methods and procedures for collecting and analyzing the data. Also, this research's population and sample size, research instruments, collection of data, and statistically treatment of data are all explained in this chapter.

4.1 Methods of Research Used

In this study, the researcher clarifies the target population as to what the major dependent variable is, the method of data collection is and how green purchase intention is influenced by independent variables. Descriptive research is defined by Zikmund's (2003) study as the research designed to describe characteristics of a population or a phenomenon and is aimed to "determine the answers to who, what, when, where and how questions." Also, Churchill (1999) stated that descriptive research could be used to evaluate the proportion of the people in a specified population who behaves in a certain way.

In order to achieve the objective of this study, the researcher has applied the sample survey technique that is normally used to gather primary data by communicating with a representative sample of the target population (Kumer et al., 1999). Zikmund (2003) mentioned that a survey research technique involves relatively low costs, less time, efficient, and accurate means of assessing information about a population.

In addition, the researcher has used a self-administered technique to collect the primary data. This questionnaire is a technique used to engage in the needed data collection. Questions involved in a self-administered technique need to be completed by the respondents themselves rather than by interviewers (Zikmund, 2004).

A self-administered technique provides a challenge to researchers because this technique requires a clear description of the written words rather than the skill of the interviewer (Zikmund, 2004). In this study, the questionnaires are designed in English

and Chinese in order to provide convenience for consumers with different nationalities who have different personal values; the researcher has distributed questionnaire in English to American consumers and the ones in the Chinese language to Chinese consumers as well.

4.2 Respondents and Sampling Procedures

4.2.1 *Target Population*

Zikmund (2004) defined a respondent as the person who answers the questions from an interviewer or provides answers to a self-administered survey. In this study, respondents are the American and Chinese consumers who have never purchased and intend to purchase green products from shopping malls and department stores. Given that this study is in Shanghai, there are some famous shopping malls and department stores. The resident population and tourists go shopping there.

Shanghai is a fashion, economic, financial and international trade center of China. It is the first international modern city. It has attracted many foreigners to come for investment, live, work, and travel. According to the Shanghai almanac in 2011, the accumulative total resident foreigners in Shanghai were 162,481 people, Americans ranked the top one of western consumers. (http://www.shanghai.gov.cn/shanghai/node2314/node24651/node29277/node29327/u21ai613761.html, 14/05/2012)

The researcher has chosen American and Chinese consumers as the target population of this study, because America is currently the world's overlord and the representative of individualism and especially they are a big group (top one) in Shanghai. Makower (2012) mentioned that 82% of the American consumers had purchased green products in Shanghai. China is in the leading position in Asia and the representative of collectivism, and then only 74% said they had bought green products from China Consumers' Association survey in Shanghai (Yan, 2012).

There are 18% of American consumers and 26% of Chinese consumers who never buy green products in Shanghai. For both, it may be a potential proportion of

purchasing green products intention in the future. Therefore, the target population in this study is consumers who intend to purchase green products in the future.

4.2.2 *Sample Size*

Based on Zikumnd's (2004) study, the sample size is the number of observations that are specified by the evaluated variance of the population, acceptable error and confidence level. The process to determine the sample size is complex and requires both qualitative and quantitative techniques (Churchill, 1999). Since the number of population of American and Chinese consumers is unknown and not easy to estimate, the researcher has decided to use the following statistically formula (Berenson & Levine, 1999).

$$n = \frac{Z^2 \times p \times (1-p)}{e^2}$$

Where, n = Number of the sample size,

Z = Confidence level in standard error units (1.96 for 95% confidence level),

p = True population proportion, and

e^2 = Acceptable sampling error in estimating the population proportion,

The level of precision is set to be ±5% and the confidence level of 95% is set in this research. It means that 95 out of 100 samples will have true population within the specific level of precision. Berenson (1999) proposed that when there is no prior knowledge or estimate of the true proportion p. Therefore, the researcher has decided to use p value of 0.5 with a sampling error of 0.05 and a confidence level of 95% in the calculation.

$$n = \frac{(1.96)^2(0.5)(0.5)}{0.05^2}$$
$$= 384.16$$

Therefore, the required sample size is 385. However, Bartlett et al. (2001) mentioned that using a large sample size will help decrease errors. McClave and Sincich (2006) mentioned that the value should be rounded up in order to make the sample size be sufficient enough to achieve the reliability.

According to previous studies, they are referred to in order to determine and

appropriate sample size for this study. First, Aman et al. (2012) studied the influence of environmental knowledge and concern on green purchase intention the role of attitude as a mediating variable, analyzing questionnaires obtained from 384 respondents. Second, questionnaires form 400 respondents were analyzed in Ali et al.'s (2011) study of the determinants of Pakistani consumer's green purchase behavior: some insights from a developing country. Third, questionnaires form 400 respondents were analyzed in Iravani et al.'s (2012) study of factors affecting young consumers to choose green products. Forth, Ali and Ahmad (2012) studied factors that influence the green purchase intention of Pakistani consumers, analyzing questionnaires obtained from 400 respondents. Lastly, in Perrea et al.'s (2011) study of consumers' attitudes towards green food production in China, questionnaires from 479 respondents were statistically analyzed.

Thus, based on sample size a statistically formula and previous similar study in order to increase accuracy and minimize errors, the researcher referenced previous articles and concludes the suitable sample size of this study is 400.

4.2.3 *Sampling Procedure*

In this study, the researcher has applied both probability and non-probability approaches of the sampling procedure. Probability sampling is a technique in which every member of the population has a known non-zero probability of selection. Non-probability sampling is a technique in which any unit of the sample is chosen on the basis of convenience or personal judgment, with an unknown probability (Zikmund, 2003).

As for probability approach, the researcher has applied simple random sampling and as for non-probability approach, the researcher has applied quota sampling and convenience sampling. All details are as follows:

Firstly, the simple random sampling is used. Simple random sampling is a very simple procedure used to assure that every single element in the population has an equal chance to be selected to be in the sample (Zikmund, 2003). In this study, there

are totally 100 branches of shopping malls and department stores. Yount (2006) mentioned that when the size of population between 101 and 1,000 the percentage of random sampling would be 10%. Therefore, the researcher has decided to randomize 10% of the branches. The researcher has written down all the branches of the shopping malls and department stores in a paper and put in one box, then drawn 10 shopping malls and department stores branch names from the box. It means that the researcher has got 10 branches from the total 100 branches by drawing technique. The random branches located in Shanghai are as follows:

1. Brilliance Shimao International Plaza
2. No.1 Yaohan Department Store
3. Super Brand Mall
4. Cloud Nine Shopping Mall
5. Dragon Gate Mall
6. PARKSON
7. Golden Eagle Department Store
8. Pacific Department Store
9. Grand Gateway Mall, and
10. Times Square

Secondly, the researcher applied the quota sampling. Quota sampling is a procedure used in order to ensure that certain characteristics of the sample will be represented as the investigator desires (Zikmund, 2003). The number of respondents assigned to each branch of shopping malls and department stores is decided by using quota sampling. From the calculation of the sample size and simple random sampling, the researcher knows that the total number of sample is 400 respondents, consisting of 200 American consumers and 200 Chinese consumers from 10 different branches. Therefore, 40 respondents will be chosen from each branch.

Thirdly, the convenience sampling is used. Phonkaew (2009) mentioned that the convenience sampling attempts to obtain a sample of convenient elements; often,

respondents are selected because they happen to be in the right place at the right time. It is used as the procedure to obtain a large number of questionnaires quickly and economically (Zikmund, 2003). Applying this procedure, the researchers will collect the data equally 40 respondents at each branch being anybody available to answer the questionnaire.

4.3 Research Instruments

The researcher has designed a seven-point Likert scale to measure the factors affecting the green purchase intention between the American and the Chinese consumers. There are four variables measured in the factors affecting the green purchase intention, which are attitudes toward green purchase, environmental knowledge, and environmental concern. The Likert scale is a measure of attitudes designed to allow respondents to indicate how strongly they agree or disagree with constructed statements that range toward an attitudinal object (Rensis, 1932).

In this way, respondents can indicate their attitudes by examining how strongly they agree or disagree with deliberately designed statements that range from very positive to very negative. Then, the Likert scale makes it very simple and easy for respondents to complete the questionnaire. The questionnaire's scales, ranging from 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Moderately Agree to 7 = Strongly Agree.

As for demographic information, the researcher has designed a category scale, a tool to measure the demographic information of the respondents. The category scale is an attitude measurement, consisting of several categories to provide the respondents with a number of alternative ratings (Zikmund, 2003).

Part I: Screening Question

Screening questions are designed to get the target population who is qualified to answer the whole questionnaire. Questionnaire scale is used to provide fixed-alternative questions for the respondents (Zikmund, 2003). For the English version questionnaire, the first question identifies whether consumers are American, if

they answer "Yes" they can continue to answer the second question. The second question identifies whether consumers to buy green products, and if they answer "No" they can continue to answer the third question. The third question is designed to filter consumers as to whether consumers to intend to buy green products, and if they answer "Yes", they can continue to answer the next question till the end of the questionnaire. For Chinese version questionnaire, only the last two screening questions mentioned before.

Part II: Factors affecting Green Purchase Intention

The factors refer to green purchase intention. This part includes a total of 28 questions: Q4 to Q31 dealing with environmental knowledge, environmental concern, attitudes toward green purchase and social influence. All the questions rely on Likert scale for the respondents to indicate their opinions. In this part, the respondents will be asked to choose the seven-point Likert scale of factors affecting green purchase behavior, which can express their perception to the most.

Part III: Green Purchase Intention

In this part, the respondents will be provided with eight questions (Q32 to Q39) and asked to choose the level of their perception of the green purchase intention. The nine questions use the seven-point Likert scale.

Dawes (2008) mentioned that a five- or seven-point scale is likely to produce slightly higher mean scores relative to the highest possible attainable score. In both Part II and Part III, the researcher applied seven points in this questionnaire. The seven points are 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree 6 = Moderately Agree, and 7 = Strongly Agree. In this way, respondents can indicate their attitudes by examining how strongly they agree or disagree with deliberately designed statements that range from very positive to very negative. The Likert scale makes it very simple and easy for respondents to complete the questionnaire.

Part IV: Demographic Characteristics

In this part, the respondents will be asked about the general information of respondents that includes age, gender, educational level, occupation, monthly income, marital status and family status. Close-end questions are designed to gather demographic information about target population so as to analyze different group's opinion, it means respondents are given limited answers and they can select the closest to individual recognition (Zikumnd, 2004).

The researcher showed the summary of the number of questions for each variable on Table 4.1 in order to provide convenience for readers, and then they will understand easily and clearly.

Table 4.1: Arrangement of Questionnaire

Part	Variables		Questions
Part I	Screening Questions		1-3
Part II	Factors affecting Green Purchase Intention	Environmental Knowledge	4-9
		Environmental Concern	10-15
		Attitudes toward Green Purchase	16-23
		Social Influence	24-31
Part III	Green Purchase Intention	Green Purchase Intention	32-39
Part IV	Demographic Factors	Age Category	40
		Gender	41
		Educational Level	42
		Occupation	43
		Monthly Income	44
		Marital Status	45
		Family Status	46

4.4 Pretest

        Churchill (1991) stated that in the questionnaire designed, each question has to be ensured that it will not be confusing and do not make the respondents feel like offensive. Thus, all the questions in the questionnaire designed have to be reviewed and checked carefully. Moreover, pretesting has been proved to be very valuable when the questionnaire is being edited in an effective and efficient study. Then, the pretest has been conducted.

        Pretesting has been conducted in order to detect any error in the questionnaire and avoid misunderstanding of the questionnaire on the part of the respondents and help the researcher find out whether the respondents have any difficulty or need further clarification about the questionnaire. Pretest is a very useful tool to detect any problems of the questionnaire designed when the questionnaire is distributed to collect the respondents' information. Seymour (1983) stated that a number of 20-50 cases for the pilot test are sufficient enough to find the major defeats and it is the way to protect the main study from damage. Vanichbancha (2001) recommended that at least 20 cases should be involved in the pretesting process. Thus, in this study, the researcher has distributed 20 cases of the American consumers and 20 cases of the Chinese consumers, totally is 40 cases. These questionnaires were distributed to consumer in Brilliance Shimao International Plazaon October 2rd, 2012. The researcher will show the map of Brilliance Shimao International Plaza in Figure 4.1.

Figure 4.1: The Map of Brilliance Shimao International Plaza in Shanghai

Note: Brilliance Shimao International Plaza is located on walking street Nanjing Road.

The pretest of reliability has been conducted based on all the four variables, which are environmental knowledge, environmental concern, attitudes toward green purchase and social influence. According to Sekaran's (1983) study, the variables are reliable when each of the different variable has more than or equal to 0.6 of Cronbach's alpha level, and the variables are unreliable when each of the different variable has less than 0.6 of Cronbach's alpha level. The results of the Cronbach's Alpha Coefficient assisted by the Statistical Product and Service Solutions (SPSS) program are as follows:

Table 4.2: The Value of Reliability Analysis Results of Pilot Distribution of the Questionnaire (Cronbach's Alpha (α) Coefficient)

Questionnaire Components	Alpha Test
Potential Factors	
1. Environmental Knowledge	0.820
2. Environmental Concern	0.642
3. Attitudes toward Green Purchase	0.777
4. Social Influence	0.621
5. Green Purchase Intention	0.650

The researcher has used the SPSS program to code and process the data in order

to find the reliability by the Cronbach's Coefficient Alpha test. According to Table 4.2, the results revealed that the Cronbach's alpha level of environmental knowledge, environmental concern, and attitudes toward green purchase and social influence are 0.820, 0.642, 0.777, 0.621 and 0.650, respectively. The Cronbach's alpha value of the questions in the questionnaires are more than 0.6, thus, the researcher can conclude that the designed questionnaire is reliable except for the variable of trust.

4.5 Collection of Data

According to this study, the researcher has decided to use primary data collected through self-administered questionnaires that are distributed to consumers at the shopping malls and department stores in Shanghai. Survey is a mean of using an appropriate questionnaire to gather information for a sample of population (Zikmund, 2003). Before consumers do the questionnaires, the researcher asks them whether they purchase green products, and then give them 2 RMB as bonus. The first 40 survey questionnaires have been distributed as a pretest during first week of National Day in October 2012, at one branch of shopping malls and department stores are Brilliance Shimao International Plaza from a total of 10 random branches in Shanghai. The researcher has decided to use a drawing technique. The remaining 360 questionnaires will distributed to the next nine random shopping malls and department stores from 20 December 2012 to 8 January 2013. They are No.1 Yaohan Department Store, Super Brand Mall, City Plaza, Cloud Nine Shopping Mall, Dragon Gate Mall, PARKSON, Golden Eagle Department Store, Pacific Department Store, Grand Gateway Mall and Times Square.

Secondary or historical data are the ones previously gathered and assembled by some researchers or projects (Zikmund, 2004). Churchill (2002) mentioned that the most significant benefits of secondary data are the cost and time economy. The secondary data is used as the data source for this research, as well. The researcher has collected a number of previous researches related from different sources such as online database and journals, in order to fulfill this study. Secondary data considered

as available data are a quick source of information and help researcher understand the initial insight into the research problems.

4.6 Statistically Treatment of Data

After the researcher has collected all the data, and used the SPSS to analyze and summarize the data collected in data interpretation and hypothesis testing forms. Kelley et al. (1993) mentioned that SPSS is a modular; one can have a fully integrated survey analysis system to design a unique software solution for specific applications. The researcher has used descriptive analysis, inferential analysis that includes Bivariate (Pearson Correlation) analysis, and Independent-Samples T Test to process the data.

4.6.1 *Descriptive Analysis*

Descriptive analysis refers to the procedures resorting to collect, summarizing, classifying, and presenting data (Sanders et al., 2007). In addition, Zikmund (2004) stated that the descriptive analysis is a statistically analysis used to transfer the raw data into easily understood formation, and this kind of formation could help the researcher interpret, rearrange, order, and manipulate data to provide the descriptive information. The descriptive analysis included frequency tabulation, percentage, and percentage cross tabulation were used in transforming the demographic profiles of respondents of term of seven variables that are age, gender, education level, occupation, monthly income, marital status, and family status all the data were summarized and presented into an understandable format.

4.6.2 *Inferential Analysis*

Zikmund (2004) mentioned that inferential analysis is a statistically model designed to make inferences or judgment on the basis of a sample from a population. It shows how variables can relate to one another or whether there are any differences between two or more groups and the like (Sekeran, 2003). The inferential analysis methods employed in this study are Bivariate, and Independent-Samples T Test.

Bivariate is required to test the closeness of the relationship between each pairs of variables. In this study the relationship between environmental knowledge, environmental concern, attitudes and social influence and green purchase intention. The Independent-Samples T Test is use to test the differences in the variables (environmental knowledge, environmental concern, attitudes, social influence and green purchase intention) between American and Chinese consumers.

- Bivariate Analysis

Bivariate technique is a parametric technique that helps researchers to find the relationship between variables (Simon, 2005). When measuring a population, it is represented by the Greek letter "ρ" and when computing a sample by "r" (Hussey, 1997). Bivariate gives a measurement for the strength of association between 2 variables. According to Churchill (1991), a positive correlation coefficient indicates a tendency for a high value in the second variable, while a negative coefficient correlation shows an association between a high value in one variable and a low value in the second.

The expression of the correlation coefficient (r) is used to measure the relationship between two variables and can be stated as follows:

$$r = \frac{\sum_{i=1}^{n}(x_i - \overline{x})(y_i - \overline{y})}{\sqrt{\sum_{i=1}^{n}(x_i - \overline{x})^2 \sum_{i=1}^{n}(y_i - \overline{y})^2}}$$

Where, r = Correlation coefficient between x and y

n = sample size

x_i = individual's score on the x variable

$\overline{x}$ = average score on the x variable

y_i = individual's score on the y variable

$\overline{y}$ = average score on the y variable

The correlation coefficient (R-value) is in a range of +1.0 to -1.0. There is a perfect positive linear association or negative linear association respectively. The level of strength of association between variables is shown in Table 4.3.

Table 4.3: Interpreting the Correlation R-value and the Measure of the Strength of Association

Correlation Coefficient (r)	Interpretation
0	No Linear Association
1	Perfect Positive Linear Association
0.9 to 0.99	Very Strong Positive Correlation
0.7 to 0.89	Strong Positive Correlation
0.40 to 0.69	Moderate Positive Correlation
0 to 0.39	Weak Positive Correlation
-1	Perfect Negative Linear Association
0 to -0.39	Weak Negative Correlation
-0.40 to -0.69	Moderate Negative Correlation
-0.70 to -0.89	Strong Negative Correlation
-0.90 to -0.99	Very Strong Negative Correlation

Source: Miles, J. and Shevlin, M. (2001). *Applying Regression and Correlation: A Guide for Students and Researchers*. UK: Sage Publication, London.

- Independent-Samples T Test

Independent-Samples T Test is used to compare the means between two groups whose scores are not related to one another (Berenson, 1998). A main assumption underlying this technique is that the whole population is normally distributed, and the Independent-Samples T Test's t is a value as shown below:

$$t = \frac{\text{Difference between Two Samples Mean}}{\text{SE of the Difference}}$$

Where, SE = Standard Error

If the mean difference between the two groups equals zero, the "t" equals zero as well. Black (2008) defined the Independent-Samples T Test formula when sample sizes are unequal with two means as follows:

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\dfrac{S_1^2(n_1 - 1) + S_2^2(n_2 - 1)}{n_1 + n_2 - 2}}}$$

$$df = n_1 + n_2 - 2$$

Where, $\overline{X_1}$ = Sample mean of group 1

$\overline{X_2}$ = Sample mean of group 2

S_1^2 = Variances of group 1

S_2^2 = Variances of group 2

n_1 = sample size of group 1

n_2 = sample size of group 2, and

df = degrees of freedom

Group 1 = the American consumers of respondents

Group 2 = the Chinese consumer of respondents

4.6.3 *Hypotheses Testing*

Statements of hypothesis are operationalized based on logical basis, as true and false, null hypothesis (H$_o$) and alternative hypothesis (H$_a$). To apply SPSS software, the collected data was analyzed into an easily interpretable and readable has to benchmark the critical value, to test the statistically significance at the level. If the

ρ-value is greater than .05, the null hypothesis is failed to reject; there is no significant relationship between two variables. On the contrary, if the ρ-value is less than .05, the null hypothesis is rejected; there is a significant relationship between two variables. The null hypotheses are outlined in the statistically methods used shown in Table 4.4.

Table 4.4: Summary of Statistically Treatment in Hypotheses Testing

Null Hypotheses (Group A)	Description	Statistically Treatment
H_{1o}	There is no significant relationship between environmental knowledge and the green purchase intention of the collectivistic (Chinese) consumers.	Bivariate
H_{2o}	Collectivistic (Chinese) consumers' attitudes are not correlated with the green purchase intention.	Bivariate
H_{3o}	There is no significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.	Bivariate
H_{4o}	There is no significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.	Bivariate

Null Hypotheses (Group B)	Description	Statistically Treatment
H_{5o}	There is no significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.	Bivariate
H_{6o}	There is no significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.	Bivariate
Null Hypotheses (Group B)	**Description**	**Statistically Treatment**
H_{7o}	There is no significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers.	Bivariate
H_{8o}	Individualistic (American) consumers' attitudes are no correlated with the green purchase intention.	Bivariate
H_{9o}	There is no significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.	Bivariate
H_{10o}	There is no significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.	Bivariate
H_{11o}	There is no significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.	Bivariate
H_{12o}	There is no significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.	Bivariate

Null Hypotheses (Group C)	Description	Statistically Treatment
H_{13o}	There is no significant difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers.	Independent-Samples T Test
H_{14o}	There is no significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers.	Independent-Samples T Test
H_{15o}	There is no significant difference in environmental concern between the collectivistic (Chinese) and individualistic (American) consumers.	Independent-Samples T Test
H_{16o}	There is no significant difference in social influence between the collectivistic (Chinese) and individualistic (American) consumers.	Independent-Samples T Test
H_{17o}	There is no significant difference in green purchase intention between the collectivistic (Chinese) and individualistic (American) consumers.	Independent-Samples T Test

Chapter 5

Presentation of Data and Critical Discussion of Results

In this chapter, the outcomes of the statistically analysis of the data obtained from Chinese and American consumers and relationships among variables are tested. Data for the study was obtained from a sample of 400 consumers of Chinese and American consumers who intend to buy green products in shopping malls and department stores of Shanghai. The results of the data analysis and interpretation of the research findings regarding the demographic factors and 17 hypotheses testing as outlined in Group A, B and C are presented.

5.1 Descriptive Analysis of Demographic Factors

A descriptive statistics method is employed normally to calculate and describe the information of a specific population in term of frequency and percentage. An analysis of the demographic characteristics of the Chinese and American consumers is presented in this section. The demographic characteristics include age, gender, educational level, occupation, monthly income, marital status and family status as shown in Table 5.1 and Table 5.2.

Table 5.1: Analysis of Demographic Factors among American and Chinese consumers using Frequency and Percentage

	Variables	American Consumers		Chinese Consumers	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Age Category	- Less than 21 years old	25	12.5	76	38
	- 21 to 30 years old	48	24	86	43
	- 31 to 40 years old	51	25.5	33	16.5
	- 41 to 50 years old	41	20.5	2	1
	- More than 50 years old	35	17.5	3	1.5
	Total	200	100	200	100
Gender	- Male	114	57	72	36
	- Female	86	43	128	64
	Total	200	100	200	100
Educational Level	- High school graduate or less	75	37.5	59	29.5
	- Bachelor's degree	36	18	107	53.5
	- Master's degree	73	36.5	31	15.5
	- Doctor's degree	16	8	3	1.5
	Total	200	100	200	100
Occupation	- Public sector employee	45	22.5	12	6
		10	5	18	9
	- Private sector employee	33	16.5	94	47
		56	28	56	28
	- Student	34	17	17	8.5

	- Self-employed	22	11	3	1.5
	- Government employee	200	100	200	100
	- Other				
	Total				
Monthly Income	- Low level	32	16	111	55.5
	- Middle level	43	21.5	38	19
	- Medium-high level	48	24	34	17
	- High level	30	15	11	5.5
	- Very high level	47	23.5	6	3
	Total	200	100	200	100
Marital Status	- Single	71	35.5	170	85
	- Married	100	50	28	14
	- Divorced/Widowed	29	15.5	2	1
	Total	200	100	200	100
Family Status	- No child	79	39.5	175	87.5
	- Have (a) child/children	121	60.5	25	12.5
	Total	200	100	200	100

5.1.1 *The Descriptive Analysis of American Consumers' Demographic Factors*

Table 5.1 indicates that the highest percentage of consumers' age is 25.5%, whose age is 31 to 40 years old (51 consumers), and others are 24% (48 consumers) whose age are 21 to 30 years old, 20.5% (41 consumers) whose age are 41 to 50 years old, 17.5% (35 consumers) whose age are more than 50 years old, 12.5% (25 consumers) whose age are less than 21 years old. Thus, the researcher concludes that the most of the American consumers are aged between 31 and 40 years old.

Table 5.1 indicates that the majority is male; they accounted 57% (114 consumers) while female accounted 43% (86 consumers). Thus, the researcher

70

concludes that the most of the American consumers are male.

As shown in Table 5.1, regarding the educational level of the consumers, the majority of them graduate high school or less and the percentage is 37.5% (75 consumers). Followed by the percentage of consumers who hold master's degree is very close to high school graduate or less, representing 36.5% (73 consumers). The percentage of consumers' educational level is 18% (36 consumers), they holding bachelor's degree. There are only 16 consumers holding doctor's degree, representing 8% of the total consumers. Therefore, the researcher concludes that the most of the American consumers graduate high school or less.

The data listed in Table 5.1 shows that consumers who are self-employed represent the highest percentage 28% (56 consumers). Followed by those who are public sector employee with 22.5% (45 consumers), and 16.5% (33 consumers) student, 17% (34 consumers) government employee, and 11% (22 consumers) other, others are 5% (10 consumers) private sector employee. Therefore, the researcher concludes that most of the American consumers are self-employed.

The data provided in Table 5.1 indicates that the highest percentage of monthly income level is 24% (48 consumers); consumers have medium-high level income. Followed by the percentage is very close to the highest one, representing 23.5% (47 consumers); consumers have very high level income. There are 21.5% (43 consumers) who have middle level income. A total of 16% of (32 consumers) them have low level income. There are 10 consumers who have high level income, representing 15% of the totals. Therefore, the researcher concludes that most of the American consumers have medium-high level income.

According to Table 5.1, the sample consists of 50% (100 consumers) are married, 35.5% (71 consumers) are single, 15.5% (29 consumers) are divorced/ widowed. Therefore, the researcher concludes that most of the American consumers are married.

As shown in Table 5.1, the highest percentage of having (a) child/children in

family status is 60.5% (121 consumers), other is 39.5% (79 consumers) who don't have any child. Therefore, the researcher concludes that most of the American consumers have (a) child/children.

5.1.2 *The Descriptive Analysis of Chinese Consumers' Demographic Factors*

Table 5.1 indicates that the highest percentage of consumers' age is 43% (86 consumers) whose age are 21 to 30 years old, and others are 38% (76 consumers) whose age are less than 21 years old, 16.5% (33 consumers) whose age are 31 to 40 years old, 1.5% (3 consumers) whose age are more than 50 years old, and 1% (2 consumers) whose age are 41 to 50 years old. Thus, the researcher concludes that the most of the Chinese consumers are aged 21 to 30 years old.

From Table 5.1 indicates that the majority is female (128 consumers); they accounted 64% while male accounted 36% (72 consumers). Thus, the researcher concludes that the most of the Chinese consumers are male.

As shown in Table 5.1, regarding the educational level of the consumers, the majority of them holding bachelor's degree and the percentage is 53.5% (107 consumers). Followed by the percentage of consumers who graduate high school or less is very close to bachelor's degree, representing 29.5% (59 consumers). The percentage of consumers' educational level is 15.5% (31 consumers), they holding master's degree. There are only 3 consumers holding doctor's degree, representing 1.5% of the totals. Therefore, the researcher concludes that the most of the Chinese consumers hold bachelor's degree.

The data listed in Table 5.1 shows that consumers who are student represent the highest percentage 47% (94 consumers). Followed by those who are self-employed with 28% (56 consumers), and 9% (18 consumers) private sector employee, 8.5% (17 consumers) government employee, and 6% (12 consumers) public sector employee, others are 5% (10 consumers). Therefore, the researcher concludes that most of the Chinese consumers are students.

The data provided in Table 5.1 indicates that the highest percentage of monthly

income level is 55.5% (111 consumers); consumers have low level income. Followed by the percentage is very close to the highest one, representing 19% (38 consumers); consumers have middle level income. There are 17% (34 consumers) who own medium-high level income. A total of 5.5% of (11 consumers) them have high level income. There are 6 consumers who have high level income representing 3% of the totals. Therefore, the researcher concludes that most of the American consumers have low level income.

According to Table 5.1, it indicates that the sample consists of 85% (170 consumers) are single, 14% (28 consumers) are married, 1% (2 consumers) are divorced/widowed. Therefore, the researcher concludes that most of the Chinese consumers are single.

As shown in Table 5.1, the highest percentage of no child in family status is 87.5% (175 consumers); other is 12.5% (25 consumers) who have (a) child/children. Therefore, the researcher concludes that most of the Chinese consumers don't have any child.

Table 5.2: Overall Analysis of Demographic Factors by using Frequency and Percentage of American and Chinese consumers

Variables		All Consumers	
		Frequency (f)	Percentage (%)
Age Category	- Less than 21 years old	101	25.3
	- 21 to 30 years old	134	33.5
	- 31 to 40 years old	84	21
	- 41 to 50 years old	43	10.8
	- More than 50 years old	38	9.5
	Total	400	100

Gender	- Male	186	46.5
	- Female	214	53.5
	Total	400	100
Educational Level	- High school graduate or less	134	33.5
	- Bachelor's degree	143	35.8
	- Master's degree	104	26
	- Doctor's degree	19	4.8
	Total	400	100
Occupation	- Public sector employee	57	14.2
	- Private sector employee	28	7
	- Student	127	31.8
	- Self-employed	112	28
	- Government employee	51	12.8
	- Other	25	6.3
	Total	400	100
Monthly Income	- Low level	143	35.8
	- Middle level	81	20.3
	- Medium-high level	82	20.5
	- High level	41	10.3
	- Very high level	53	13.3
	Total	400	100
Marital Status	- Single	241	60.3
	- Married	128	32
	- Divorced/Widowed	31	7.8
	Total	400	100
Family Status	- No child	254	63.5
	- Have (a) child/children	146	36.5

	Total	400	100

As shown in Table 5.2, most of the consumers are aged 21 to 30 years old representing 33.5% (134 consumers) of the total. 25.3% (101 consumers) are aged less than 21 years old, 21% (84 consumers) are aged 31 to 40 years old, 10.8% (43 consumers) are aged 41 to 50 years old, and 9.5% (38 consumers) are aged more than 50 years old. Therefore, the researcher concludes that most of the consumers are aged between 21 and 30 years old.

The descriptive analysis of all consumers in Table 5.2 highlights that 214 female consumers make up the highest percentage with 53.5% and 186 male consumers represent 46.5%. Therefore, the researcher concludes that most of the consumers are female.

As shown in Table 5.2, regarding the educational level of the consumers, the majority of them hold bachelor's degree and the percentage is 35.8% (143 consumers). Followed by the percentage of consumers who graduate high school or less, representing 33.5% (134 consumers). The percentage of consumers who hold master's degree is 26% with 104 consumers. There are only 19 consumers holding doctor's degree, representing 4.8% of the totals. Therefore, the researcher concludes that the most of the consumers hold bachelor's degree.

The data lists in Table 5.2 that consumers who are student take the highest percentage 31.8%, representing 127 consumers. Follows by those who are self-employed with 28% (112 consumers), and others are 14.2% (57 consumers) of public sector employee, 12.8% (51 consumers) of government employee, 7% (28 consumers) of private sector employee, and 6.3% (25 consumers) of other, respectively. Therefore, the researcher concludes that most of the consumers are students.

The data provided in Table 5.2 indicates that the highest percentage of monthly income level is 35.8% (143 consumers); consumers have low level income. Followed by the percentage is very close to the highest one, representing 20.5% (82 consumers);

consumers have medium-high level income. There are 20.3% (81 consumers) who own medium-high level income. A total of 13.3% of (53 consumers) them have very high level income. There are 41 consumers who have high level income representing 10.3% of the totals. Therefore, the researcher concludes that most of the consumers have low level income.

According to Table 5.2, it indicates that the sample consists of 60.3% (241 consumers) are single, 32% (128 consumers) are married, 7.8% (31 consumers) are divorced/widowed. Therefore, the researcher concludes that most of the consumers are single.

As shown in Table 5.1, the highest percenty of no child in family status is 63.5% (254 consumers); other is 36.5% (146 consumers) who have (a) child/children. Therefore, the researcher concludes that most of the consumers don't have any child.

5.2 Descriptive Analysis of Variables

This part is used to present the measured variables' mean and standard deviation. According to the statement of Saunders et al. (2007), mean is a frequency used measure of central tendency for grouped data while standard deviation is the most important and useful measure of dispersion for grouped data. All the detailed results are depicted below:

5.2.1 *Independent Variables*

Table 5.3: Analysis of Environmental Knowledge between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		Humans must live in harmony with nature in order to survive.	Synthetic pesticide takes long time to deteriorate into harmless chemicals.	I am very knowledgeable about environmental issues.	The earth is like a spaceship with only limited room and resources.	Mankind is severely abusing the environment.	When humans interfere with nature it often produces disastrous consequences.	EKMEAN
American	Mean	6.52	6.16	6.58	6.57	3.39	4.56	6.1300
	N	200	200	200	200	200	200	200
	Std. Deviation	.902	1.068	.910	.894	1.078	2.161	.72032
Chinese	Mean	4.89	5.20	5.59	5.19	5.61	5.26	5.2917
	N	200	200	200	200	200	200	200
	Std. Deviation	1.219	1.316	1.245	1.289	1.016	1.076	.67231
Total	Mean	5.70	5.68	6.09	5.88	5.00	4.91	5.7108
	N	400	400	400	400	400	400	400
	Std. Deviation	1.345	1.289	1.196	1.307	1.115	1.740	.90230

As shown in Table 5.3, the highest mean score of American consumers is 6.58

that pertained to the statement "I am very knowledgeable about environmental issues"; the standard deviation is .910. This indicates that they agree that they were knowledgeable person. The lowest mean of American consumers is 4.56 that pertained to the statement "When humans interfere with nature it often produces disastrous consequences"; the standard deviation is 2.161. This indicates that they think when humans interfere with nature it may be produce disastrous consequences.

For Chinese consumers, the highest mean is 5.61 that pertained to the statement "Mankind is severely abusing the environment"; the standard deviation is 1.016. This indicates that they worry about abusing the environment. The lowest mean is 4.89 that pertained to the statement "Humans must live in harmony with nature in order to survive"; the standard deviation is 1.219. This indicates that Chinese consumers think that humans may live in harmony with nature in order to survive

As to the overall mean score of American and Chinese consumers, the highest mean score is 6.09 that pertained to the statement "I am very knowledgeable about environmental issues"; the standard deviation is 1.196. The lowest mean score is 4.91 that pertained to the statement "When humans interfere with nature it often produces disastrous consequences"; the standard deviation is 1.740.

Furthermore, the total average mean value of environmental knowledge of American consumers equals 6.13 which falls between 6 (Moderately Agree) and 7 (Strongly Agree). This implies that the American consumers agree that their environmental knowledge is better.

The total average mean value of environmental knowledge of Chinese consumers equals 5.29 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the Chinese consumers agree that their environmental knowledge is good.

Table 5.4: Analysis of Attitudes between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		Citizens should recycle their household waste.	It is essential to promote green living in the world.	More environmental protection work is needed in the world.	I think environmental protection is meaningfully.	It is wise for the world to spend a vast amount of money on promoting environmental protection.	I understand the environmental phrases and symbols on product's package	Green products are a good idea.	Have a favorable attitude towards a green version of a product	ATTMEAN
American	Mean	6.69	5.54	5.57	5.43	5.11	5.06	5.05	5.12	5.7001
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.697	.923	.838	2.080	1.821	.734	1.341	1.304	1.09341
Chinese	Mean	4.02	5.16	5.30	5.63	5.21	3.57	5.24	5.02	4.9000
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.530	1.003	1.116	1.136	1.186	1.507	1.145	1.344	.83673
Total	Mean	5.35	5.35	5.44	5.53	5.16	4.77	5.31	5.07	5.3084
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.788	1.136	1.555	1.386	1.535	1.958	1.592	1.534	.97910

As shown in Table 5.4, the highest mean score of American consumers is 6.69 that pertained to this statement "Citizens should recycle their household waste"; the standard deviation is .697. This indicates that they think every person should save resources. The lowest mean of American consumers is 5.11 that pertained to the statement "It is wise for the world to spend a vast amount of money on promoting environmental protection"; the standard deviation is 1.821. This indicates that they are not sure if spending a vast amount of money on promoting environmental protection is wise for the world.

For Chinese consumers, the highest mean is 5.63 that pertained to the statement "I think environmental protection is meaningfully"; the standard deviation is 1.136. This indicates that they think environmental protection is meaningfully. The lowest mean is 3.67 that pertained to the statement "I understand the environmental phrases and symbols on product package"; the standard deviation is 1.507. This indicates that they think that Chinese consumers don't understand clearly about the environmental phrases and symbols on product package.

As to the overall mean score of American and Chinese consumers, the highest mean score is 5.85 that pertained to the statement "It is essential to promote green living in the world"; the standard deviation is 1.186. The lowest mean score is 4.77 that pertained to the statement "I understand the environmental phrases and symbols on product package"; the standard deviation is 1.958.

Furthermore, the total average mean value of attitudes of American consumers equals 5.71 which falls between 6 (Moderately Agree) and 7 (Strongly Agree). This

implies that the American consumers have more positive attitudes about environmental protection.

The total average mean value of attitudes of Chinese consumers equals 4.91 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the Chinese consumers have positive attitudes about environmental protection.

Table 5.5: Analysis of Environmental Concern between American and Chinese Consumers by using Mean and Standard Deviation

Consumers		I am very concerned about the environment.	I would be willing to reduce my consumption to help protect the environment	I would give part of my own money to help protect wild animals.	I am extremely worried about the state of the world's environment and what it will mean for my future.	I think that much of the food eat is contaminated with pesticides.	I think that humans don't have the right to modify the natural environment to suit their needs.	ECMEAN
American	Mean	6.22	6.10	5.60	3.53	5.25	5.47	5.3617
	N	200	200	200	200	200	200	200
	Std. Deviation	.966	.965	1.272	1.843	1.957	1.854	.91105
Chinese	Mean	5.57	5.55	5.51	5.17	4.92	4.74	5.2425
	N	200	200	200	200	200	200	200
	Std. Deviation	.985	.971	.951	.925	1.113	1.221	.69673
Total	Mean	5.89	5.82	5.56	4.35	5.09	5.10	5.3021
	N	400	400	400	400	400	400	400
	Std. Deviation	1.026	1.005	1.122	1.670	1.599	1.609	.81218

As shown in Table 5.5, the highest mean score of American consumers is 6.22 that pertained to this statement "I am very concerned about the environment"; the standard deviation is .966. This indicates that they are very concerned about the environment. The lowest mean of American consumers is 3.53 that pertained to the statement "I am extremely worried about the state of the world's environment and what it will mean for my future"; the standard deviation is 1.843. This indicates that they don't worry about world's environment and their future.

For Chinese consumers, the highest mean is 5.57 that pertained to the statement "I am very concerned about the environment"; the standard deviation is .985. This indicates that they are very concerned about the environment as well. The lowest mean is 4.74 that pertained to the statement "I think that humans don't have the right to modify the natural environment to suit their needs"; the standard deviation is 1.221. This indicates that humans may have the right to modify the natural environment to suit their needs.

As to the overall mean score of American and Chinese consumers, the highest mean score is 5.89 that pertained to the statement "I am very concerned about the environment"; the standard deviation is 1.026. The lowest mean score is 4.35 that pertained to the statement "I am extremely worried about the state of the world's environment and what it will mean for my future"; the standard deviation is 1.670.

Furthermore, the total average mean value of environmental concern of American consumers equals 5.36 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the American consumers agree that they are concerned about environment.

The total average mean value of environmental concern of Chinese consumers equals 5.24 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the Chinese consumers also agree that they concern about environment.

Table 5.6: Analysis of Social Influence between American and Chinese Consumers by using Mean and Standard Deviation

Consumers		I often share information regarding green products with my friends/parents.	I pay attention to environmental messages in advertisements.	I watch TV programmes that are linked to environmental topics/issues	Major social changes are necessary to protect the natural environment	Anti-pollution laws should be enforced more strongly.	I read magazines/newspapers that have environmental topics/issues.	My friends often discuss environmental topics/issues with me.	My parents/friends suggest me to buy green products.	SIMEAN
American	Mean	5.59	5.00	6.12	5.47	6.19	3.72	5.76	4.29	5.0556
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.273	1.180	1.734	1.300	.941	1.942	2.015	1.840	.83473
Chinese	Mean	6.26	5.77	6.48	5.38	6.53	6.87	6.84	5.07	5.3800
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.737	1.17	1.081	1.337	1.921	1.188	1.060	1.128	.63135
Total	Mean	5.92	5.83	6.60	5.90	5.41	4.78	6.48	5.69	5.9781
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.772	1.175	1.16	1.134	1.123	1.934	1.849	1.302	73.09

As shown in Table 5.6, the highest mean score of American consumers is 6.19 that pertained to this statement "Anti-pollution laws should be enforced more strongly"; the standard deviation is .941. This indicates that they agree that anti-pollution laws should be enforced more strongly. The lowest mean for American consumers is 3.72 that pertained to the statement "I read magazines/newspapers that have environmental topics/issues"; the standard deviation is 1.942. This indicates that they may spend a little time reading magazines/newspapers.

For Chinese consumers, the highest mean is 6.26 that pertained to the statement "I often share information regarding green products with my friends/parents"; the

standard deviation is .737. The lowest mean is 5.77 that pertained to the statement "I pay attention to environmental message in advertisements"; the standard deviation is 1.171. This indicates that they may pay attention to environmental messages in advertisements.

As to the overall mean score of American and Chinese consumers, the highest mean score is 5.96 that pertained to the statement "I watch TV programs that are devoted to environmental topics/issues"; the standard deviation is 1.119. The lowest mean score is 4.79 that pertained to the statement "I read magazines/newspapers that have environmental topics/issues"; the standard deviation is 1.934.

Furthermore, the total average mean value of social influence of American consumers equals 5.36 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the American consumers think that social influence may affect the environment.

The total average mean value of social influence of Chinese consumers equals 5.88 which falls between 6 (Moderately Agree) and 7 (Strongly Agree). This implies that the Chinese consumers believe that social influence can greatly affect the environment.

5.2.2 *Dependent Variable*

Table 5.7: Analysis of the Green Purchase Intention between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		When I have to choose between two equal products, I intend to buy the one less harmful to other people and the environment	I intend to buy eco-friendly products in the future.	I intend to buy products that are made from recycled materials.	I intend to switch products for ecological reasons.	When I intend to buy green products I will consider whether their advertisements are also green.	When I intend to buy green products I will consider whether their producing process is also green	When I intend to buy green products I will consider whether their package is also green.	When I intend to buy green products I will consider their price.	GPIMEAN
American	Mean	5.60	5.62	5.53	6.06	5.44	5.58	6.09	5.51	5.0075
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.763	1.407	2.766	1.805	1.914	.818	.726	1.535	.78862
Chinese	Mean	5.71	5.21	4.37	4.28	4.32	5.72	6.67	5.98	5.1587
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.192	1.163	1.286	1.334	1.347	1.046	1.095	1.030	.68117
Total	Mean	5.18	5.42	4.95	5.17	4.88	5.15	6.18	5.75	5.5831
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.094	1.307	1.314	1.817	1.746	1.03	1.000	1.350	.82710

As shown in Table 5.7, the highest mean score of American consumers is 6.69 that pertained to this statement "When I intend to buy green products, I will consider whether their package is also green"; the standard deviation of .726. This indicates that they care about green package. The lowest mean of American consumers is 5.44 that pertained to the statement "When I intend to buy green products, I will consider whether their advertisements are also green"; the standard deviation of 1.914. This indicates that they may care about the green products' advertisements.

For Chinese consumers, the highest mean is 5.98 that pertained to the statement "When I intend to buy green products, I will consider whether their price"; the standard deviation of 1.00. This indicates that their parents/friends support them to buy green products. The lowest mean is 4.28 that pertained of the statement "I intend to switch products for ecological reasons"; the standard deviation is 1.334. This indicates that they may switch products for other reasons.

As to the overall mean score of American and Chinese consumers, the highest mean score is 6.18 that pertained to the statement "When I intend to buy green products, I will consider whether their package is also green"; the standard deviation is 1.060. The lowest mean score is 4.88 that pertained to the statement "When I intend to buy green products I will consider whether their advertisements are also green"; the standard deviation is 1.814.

Furthermore, the total average mean value of green purchase intention of American consumers equals 6.01 which falls between 6 (Moderately Agree) and 7 (Strongly Agree). This implies that American consumers will buy green products in any case.

The total average mean value of green purchase intention of Chinese consumers equals 5.16 which falls between 5 (Slightly Agree) and 6 (Moderately Agree). This implies that the Chinese consumers may buy green products according to the specific circumstances.

5.3 Inferential Statistics of Hypotheses Testing

Saunders et al. (2007) mentioned that the purpose of the inferential statistics is to help researchers make a judgment about the whole population on the results which generated by the sample. It enables researchers to engage the needed statistically test of hypotheses in a business study. Furthermore, according to Zikmund's (2004) study, hypothesis testing is based on assumption, data, and information, which obtained from the sample and utilized to help researchers make decision whether the hypothesized population parameter is accurate or not. In this study, seventeen hypotheses are proposed by the researcher based on the conceptual framework, classified into three groups.

The first group of hypotheses focused on the relationship of environmental knowledge, attitudes, environmental concern, and social influence in the green purchase intention of Chinese consumers and included hypotheses 1 to 6 and Bivariate is required. The second group of hypotheses focused on the relationship of environmental knowledge, attitudes, environmental concern, and social influence in the green purchase intention of American consumers and included hypotheses 7 to 12 and Bivariate is required. The third group of hypotheses focused on comparison of difference in the green purchase intention between Chinese and American consumers and included hypotheses 13 to 17 and Independent-Samples T Test is required

Group A: To find the relationship of the variables in the green purchase intention of the collectivistic (Chinese) consumers.

Hypothesis 1

H_{1o}: There is no significant relationship between environmental knowledge and the green purchase intention of collectivistic (Chinese) consumers.

H_{1a}: There is a significant relationship between environmental knowledge and the green purchase intention of the collectivistic (Chinese) consumers.

Table 5.8: Analysis of the Relationship between Environmental Knowledge and the Green Purchase Intention of Chinese Consumers by using Bivariate

Correlations

		GPIMEAN	EKMEAN
GPIMEAN	Pearson Correlation	1	.415**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.415**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.8, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between environmental knowledge and the green purchase intention at the .01 of significant level.

At .415, it means that there is a weak positive relationship between Chinese consumers' environmental knowledge and the green purchase intention. This coefficient also indicates that Chinese consumers' environmental knowledge and the green purchase intention move in the same direction.

Hypothesis 2

H_{2o}: Collectivistic (Chinese) consumers' attitudes are not correlated with the green purchase intention.

H_{2a}: Collectivistic (Chinese) consumers' attitudes are correlated with the green purchase intention.

Table 5.9: Analysis of the Relationship between Attitudes and the Green Purchase Intention of Chinese Consumers by using Bivariate

Correlations

		GPIMEAN	ATTMEAN
GPIMEAN	Pearson Correlation	1	.681**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.681**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.9, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between attitudes and the green purchase intention at the .01 of significant level.

At .681, it means that there is a moderate positive relationship between Chinese consumers' attitudes and the green purchase intention. This coefficient also indicates that Chinese consumers' attitudes and the green purchase intention move in the same direction.

Hypothesis 3

H_{3o}: There is no relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.

H_{3a}: There is a relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.

Table 5.10: Analysis of the Relationship between Environmental Concern and the Green Purchase Intention of Chinese Consumers by using Bivariate

Correlations

		GPIMEAN	ECMEAN
GPIMEAN	Pearson Correlation	1	.199[**]
	Sig. (2-tailed)		.000
	N	200	200
ECMEAN	Pearson Correlation	.199[**]	1
	Sig. (2-tailed)	.000	
	N	200	200

[**]. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.10, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between environmental concern and the green purchase intention at the .01 of significant level.

At .199, it means that there is a weak positive relationship between Chinese consumers' environmental concern and the green purchase intention. This coefficient also indicates that Chinese consumers' environmental concern and the green purchase intention move in the same direction.

Hypothesis 4

H_{4o}: There is no relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.

H_{4a}: There is a relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.

Table 5.11: Analysis of the Relationship between Environmental Knowledge and Attitudes of Chinese Consumers by using Bivariate

Correlations

		ATTMEAN	EKMEAN
ATTMEAN	Pearson Correlation	1	.488[**]
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.488[**]	1
	Sig. (2-tailed)	.000	
	N	200	200

[**]. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.11, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between environmental knowledge and the attitudes at the .01 of significant level.

At .488, it means that there is a moderate positive relationship between Chinese consumers' environmental knowledge and the attitudes. This coefficient also indicates that Chinese consumers' environmental knowledge and the attitudes move in the same direction.

Hypothesis 5

H_{5o}: There is no significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.

H_{5a}: There is a significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.

Table 5.12: Analysis of the Relationship between Environmental Concern and the Attitudes of Chinese Consumers by using Bivariate

Correlations

		ECMEAN	ATTMEAN
ECMEAN	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.12, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 ($.000 < .01$). Therefore the null hypothesis is rejected. Then, there is a significant relationship between environmental knowledge and the attitudes at the .01 of significant level.

At .671, it means that there is a moderate positive relationship between Chinese consumers' environmental concern and the attitudes. This coefficient also indicates that Chinese consumers' environmental concern and the attitudes move in the same direction.

Hypothesis 6

H_{6o}: There is no significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.

H_{6a}: There is a significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.

Table 5.13: Analysis of the Relationship between Social Influence and the Green Purchase Intention of Chinese Consumers by using Bivariate

Correlations

		SIMEAN	GPIMEAN
SIMEAN	Pearson Correlation	1	.504**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.504**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.13, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between social influence and the green purchase intention at the .01 of significant level.

At .504, it means that there is a moderate positive relationship between Chinese consumers' social influence and the green purchase intention. This coefficient also indicates that Chinese consumers' social influence and the green purchase intention move in the same direction.

Group B: To find the relationship of variables in the green purchase intention of the individualistic (American) consumers.

Hypothesis 7

H_{7o}: There is no significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers.

H_{7a}: There is a significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers.

Table 5.14: Analysis of the Relationship between Environmental Knowledge and the Green Purchase Intention of American Consumers by using Bivariate

Correlations

		GPIMEAN	EKMEAN
GPIMEAN	Pearson Correlation	1	.447**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.447**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.14, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between individualistic (American) consumers' environmental knowledge and the green purchase intention at the .01 of significant level.

At .447, it means that there is a moderate positive relationship between American consumers' environmental knowledge and the green purchase intention. This coefficient also indicates that American consumers' environmental knowledge and the green purchase intention move in the same direction.

Hypothesis 8

H_{8o}: Individualistic (American) consumers' attitudes are no correlated with the green purchase intention.

H_{8a}: Individualistic (American) consumers' attitudes are a correlated with the green purchase intention.

Table 5.15: Analysis of the Relationship between Attitudes and the Green Purchase Intention of American Consumers by using Bivariate

Correlations

		ATTMEAN	GPIMEAN
ATTMEAN	Pearson Correlation	1	.450**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.450**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.15, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between individualistic (American) consumers' attitudes and the green purchase intention at the .01 of significant level.

At .450, it means that there is a moderate positive relationship between American consumers' attitudes and the green purchase intention. This coefficient also indicates that American consumers' attitudes and the green purchase intention move in the same direction.

Hypothesis 9

H_{9o}: There is no significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.

H_{9a}: There is a significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.

Table 5.16: Analysis of the Relationship between Environmental Concern and the Green Purchase Intention of American Consumers by using Bivariate

Correlations

		ECMEAN	GPIMEAN
ECMEAN	Pearson Correlation	1	.336**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.336**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.16, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between individualistic (American) consumers' environmental concern and the green purchase intention at the .01 of significant level.

At .336, it means that there is a weak positive relationship between American consumers' environmental concern and the green purchase intention. This coefficient also indicates that American consumers' environmental concern and the green purchase intention move in the same direction.

Hypothesis 10

H_{10o}: There is no significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.

H_{10a}: There is a significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.

Table 5.17: Analysis of the Relationship between Environmental Knowledge and Attitudes of American Consumers by using Bivariate

Correlations

		EKMEAN	ATTMEAN
EKMEAN	Pearson Correlation	1	.411**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.411**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.17, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between individualistic (American) consumers' attitudes and the environmental knowledge at the .01 of significant level.

At .411, it means that there is a moderate positive relationship between American consumers' attitudes and the environmental knowledge. This coefficient also indicates that American consumers' attitudes and the environmental knowledge move in the same direction.

Hypothesis 11

H_{11o}: There is no significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.

H_{11a}: There is a significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.

Table 5.18: Analysis of the Relationship between Environmental Concern and the Attitudes of American Consumers by using Bivariate

Correlations

		ATTMEAN	ECMEAN
ATTMEAN	Pearson Correlation	1	.423**
	Sig. (2-tailed)		.000
	N	200	200
ECMEAN	Pearson Correlation	.423**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.18, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .01). Therefore the null hypothesis is rejected. Then, there is a significant relationship between individualistic (American) consumers' attitudes and the environmental concern at the .01 of significant level.

At .423, it means that there is a moderate positive relationship between American consumers' attitudes and the environmental concern. This coefficient also indicates that American consumers' attitudes and the environmental concern move in the same direction.

Hypothesis 12

H_{12o}: There is no significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.

H_{12a}: There is a significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.

Table 5.19: Analysis of the Relationship between Social Influence and the Green

Purchase Intention of American Consumers by using Bivariate

Correlations

		GPIMEAN	SIMEAN
GPIMEAN	Pearson Correlation	1	.300**
	Sig. (2-tailed)		.000
	N	200	200
SIMEAN	Pearson Correlation	.300**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5.19, the result from Bivariate analysis presented that the significance equals .000 that is less than .01 (.000 < .05). Therefore the null hypothesis is rejected. Then, there is a significant relationship between social influence and the green purchase intention of American consumers at the .01 of significant level.

At .300, it means that there is a weak positive relationship between social influence and the green purchase intention of American consumers. This coefficient also indicates that social influence and green purchase intention of American consumers move in the same direction.

Group C: To compare difference in the green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

Hypothesis 13

H_{13o}: There is no significant difference in environmental knowledge between the collectivistic (Asian) and the individualistic (American) consumers.

H_{13a}: There is a significant difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers.

Table 5.20: Analysis of Environmental Knowledge When determined by Different Consumers using Independent-Samples T Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
EKMEAN	Equal variances assumed	19.919	.000	10.474	398	.000	.83833	.08004	.68097	.99569
	Equal variances not assumed			10.474	384.270	.000	.83833	.08004	.68096	.99571

As shown in Table 5.20, the Independent-Samples T Test indicates that the significance (2-tailed test) equals .000 that is less than .05 (.000 < .05). Therefore, null hypothesis (H_o) is rejected. Then, there is a significant difference in environmental knowledge between American and Chinese consumers at the .05 significant level.

Hypothesis 14

H_{14o}: There is no significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{14a}: There is a significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers.

Table 5.21: Analysis of Attitudes When determined by Different Consumers using Independent-Samples T Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ATTMEAN	Equal variances assumed	46.140	.000	8.935	398	.000	.79937	.08947	.62348	.97527
	Equal variances not assumed			8.935	320.045	.000	.79937	.08947	.62335	.97540

As shown in Table 5.21, the Independent-Samples T Test indicates that the significance (2-tailed test) equals .000 that is less than .05 (.000 < .05). Therefore, null hypothesis (H_o) is rejected. Then, there is a significant difference in attitudes between American and Chinese consumers at the .05 significant level.

Hypothesis 15

H_{15o}: There is no significant difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{15a}: There is a significant difference in environmental concern between the

collectivistic (Chinese) and the individualistic (American) consumers.

Table 5.22: Analysis of Environmental Concern When determined by Different Consumers using Independent-Samples T Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ECMEAN	Equal variances assumed	15.312	.000	1.469	398	.143	.11917	.08110	-.04027	.27860
	Equal variances not assumed			1.469	372.443	.143	.11917	.08110	-.04030	.27864

As indicated in Table 5.21, the Independent-Samples T Test showed that the significance (2-tailed test) equals 0.143 that is more than .05 (.143 > .05). Therefore, null hypothesis (H_o) is accepted. Then, there is no significant difference in environmental concern between American and Chinese consumers at the .05 significant level.

Hypothesis 16

H_{16o}: There is no significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers.

H_{16a}: There is a significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers.

Table 5.23: Analysis of Social Influence When determined by different Consumers using Independent-Samples T Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SIMEAN	Equal variances assumed	.003	.954	-7.686	398	.000	-.52500	.06831	-.65929	-.39071
	Equal variances not assumed			-7.686	397.990	.000	-.52500	.06831	-.65929	-.39071

As indicated in Table 5.23, the Independent-Samples T Test showed that the significance (2-tailed test) equals .000 that is less than .05 (.000 > .05). Therefore, null hypothesis (H_o) is rejected. Then, there is a significant difference in social influence between American and Chinese consumers at the .05 significant level.

Hypothesis 17

H$_{17o}$: There is no significant difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

H$_{17a}$: There is a significant difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.

Table 5.24: Analysis of the Green Purchase Intention When determined by Different Consumers using Independent-Samples T Test

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
GPIMEAN	Equal variances assumed	1.185	.277	11.946	398	.000	.84875	.07105	.70907	.98843
	Equal variances not assumed			11.946	395.414	.000	.84875	.07105	.70907	.98843

As indicated in Table 5.24, the Independent-Samples T Test showed that the significance (2-tailed test) equals .000 that is less than .05 (.000 > .05). Therefore, null hypothesis (H$_o$) is rejected. Then, there is a significant difference in the green purchase intention between American and Chinese consumers at the .05 significant level.

5.4 Summary of Hypotheses Testing

Table 5.25: Summary of Null Hypotheses Result of Chinese Consumers by using Bivariate

Null Hypotheses (Group A)	Significant Level	Bivariate	Result
H$_{1o}$: There is no significant relationship between environmental knowledge and the green purchase intention of collectivistic (Chinese) consumers.	0.00	0.415	Reject H$_o$
H$_{2o}$: Collectivistic (Chinese) consumers' attitudes are not correlated with the green purchase intention.	0.00	0.681	Reject H$_o$

H$_{3o}$: There is no significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers.	0.00	0.199	Reject H$_o$
H$_{4o}$: There is no significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers.	0.01	0.488	Reject H$_o$
H$_{5o}$: There is no significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers.	0.00	0.671	Reject H$_o$
H$_{6o}$: There is no significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers.	0.00	0.504	Reject H$_o$

Table 5.26: Summary of Null Hypotheses Result of American Consumers by using Bivariate

Null Hypotheses (Group B)	Significant Level	Bivariate	Result
H$_{7o}$: There is no significant relationship between environmental knowledge and the green purchase intention of individualistic (American) consumers.	0.00	0.447	Reject H$_o$
H$_{8o}$: Individualistic (American)			

Null Hypotheses	Significant Level	Result
consumers' attitudes are not correlated with the green purchase intention.	0.00	0.450	Reject H_o
H_{9o}: There is no significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers.	0.00	0.336	Reject H_o
H_{10o}: There is no significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers.	0.00	0.411	Reject H_o
H_{11o}: There is no significant relationship between environmental concern and the attitudes of the individualistic (American) consumers.	0.00	0.423	Reject H_o
H_{12o}: There is no significant relationship between social influence and the green purchase intention of the individualistic (American) consumers.	0.00	0.300	Reject H_o

Table 5.27: Summary of Null Hypotheses result between the Chinese and the American consumers by using Independent-Samples T Test

Null Hypotheses (Group C)	Significant Level	Result
H_{13o}: There is no significant difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers.	0.00	Reject H_o
H_{14o}: There is no significant difference in attitudes		

between the collectivistic (Chinese) and the individualistic (American) consumers.	0.00	Reject H_o
H_{15o}: There is no significant difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers.	0.143	Accept H_o
H_{16o}: There is no significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers.	0.00	Reject H_o
H_{17o}: There is no significant difference in the green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers.	0.00	Reject H_o

Chapter 6

Summary, Conclusion and Recommendation

This chapter includes four sections. The first is about summarized information that derives from the processed data in Chapter 5, such as demographic characteristics and hypotheses testing. The second is discussion and implication about the hypotheses that are provided. The conclusions, recommendation of this study, and suggestion for further research are demonstrated in turn from section.

6.1 Summary of Findings

In brief, the purpose of this study is to inspect the differences between American and Chinese consumers regarding environmental knowledge, attitudes, environmental concern, social influence and green purchase intention. The relationship between independent variables and dependent variable is also investigated synchronously using SPSS program.

6.1.1 *Summary of Demographic Factors*

The researcher distributed designed questionnaires in the selected 10 branches of shopping malls and department stores in Shanghai. 400 valid questionnaires were returned and analyzed by SPSS program. The supposed demographic profile in this study involves age category, gender, educational level, occupation, monthly income, marital status and family status. Detailed information is shown below:

Table 6.1: Summary of Majority in Percentage of American and Chinese Consumers' Demographic Profile

Demographic Profile	American Consumers		Chinese Consumers	
	Personal Data	Percentage (%)	Personal Data	Percentage (%)
Age Category	31-40	25.5	21-30	43

102

Gender	Male	57	Female	64
Educational Level	High school graduate or less	37.5	Bachelor's degree	53.5
Occupation	Self-employed	28	Student	47
Monthly Income	Very high level	23.5	Low level	55.5
Marital Status	Married	50	Single	85
Family Status	Have (a) child/children	60.5	No child	87.5

The demographic characteristics of American consumers in Table 6.1 indicated that the people aged between 31 and 40 years old (25.5%) are the majority. For gender, the majority is male (57%). For educational level, the majority graduated high school or less (37.5%). For occupation, the major group of consumers is self-employed (28%). For monthly income, the highest percentage is consumers who have very high level income (23.5%). For marital status, the majority is married (50%). For family status, the majority has (a) child/children (60.5%).

The demographic characteristics of Chinese consumers in Table 6.1 indicated that the people aged between 21 to 30 years old (43%) are the majority. For gender, the majority is female (64%). For educational level, the majority hold bachelor's degree (53.5%). For occupation, the major group of consumers is student (47%). For monthly income, the highest percentage is consumers who have low level income (55.5%). For marital status, the majority is single (85%). For family status, the majority doesn't have any child (87.5%).

Table 6.2: Summary of Overall Majority in Frequency and Percentage of All Consumers

Demographic Profile	Majority of All Consumers		
	Variable	Frequency	Percentage (%)
Age Category	21-30	134	33.5
Gender	Female	214	53.5
Educational Level	Bachelor's degree	143	35.8

Occupation	Student	127	31.8
Monthly Income	Low level	143	35.8
Marital Status	Single	241	60.3
Family Status	No child	254	63.5

The overall demographic characteristics of these consumers in Table 6.2 indicated that there are 134 consumers aged between 21 and 30 years old are the majority (33.5%). Most are female (53.5%), totaling 214 consumers. Most hold bachelor's degree (35.8%), totaling 143 consumers. Most are student (31.8%), totaling 127 consumers. Most have low level of monthly income (35.8%), totaling 143 consumers. Most are single (60.3%), totaling 241 consumers. Most don't have any child (63.5%), totaling 254 consumers.

6.1.2 *Summary of Descriptive Analysis*

The descriptive technique analyzed five variables by using mean and standard deviation. The highest and lowest means of American and Chinese consumers are demonstrated in Table 6.3 and 6.4.

Table 6.3: Summary of the highest and lowest means of independent and dependent variables in American consumers

Variables	Highest Mean of Items	Lowest Means of Items
Environmental Knowledge	I am very knowledgeable about environmental issues. (6.58)	When humans interfere with nature it often produces disastrous consequences. (4.56)
Attitudes	Citizens should recycle their household waste. (6.69)	It is wise for the world to spend a vast amount of money on promoting environmental protection. (5.11)
Environmental Concern	I am very concerned about the environment. (6.22)	I am extremely worried about the state of the world's environment and what it will

		mean for my future. (3.53)
Social Influence	Anti-pollution laws should be enforced more strongly. (6.19)	I read magazine/newspapers that have environmental topics/issues. (3.72)
Green Purchase Intention	When I intend to buy green products, I will consider whether their package is also green. (6.69)	When I intend to buy green products, I will consider whether their advertisements are also green. (5.44)

Table 6.4: Summary of the highest and lowest means of independent and dependent variables in Chinese consumers

Variables	Highest Means of Items	Lowest Mean of Items
Environmental Knowledge	Mankind is severely abusing the environment. (5.61)	Humans must live in harmony with nature in order to survive. (4.89)
Attitudes	I think environment protection is meaningfully. (5.63)	I understand the environmental phrases and symbols on product's package. (3.67)
Environmental Concern	I am very concerned about the environment. (5.57)	I think that humans don't have the right to modify the natural environment to suit their needs. (4.74)
Social Influence	I often share information regarding green products with my	I pay attention to environmental message

	friends/parents. (6.26)	in advertisements. (5.77)
Green Purchase Intention	When I intend to buy green products, I will consider whether their price. (5.98)	I intend to switch products for ecological reasons. (4.28)

6.1.3 *Summary of Hypotheses Testing*

According to the objectives of this research, seventeen hypotheses were generated and tested. The statistically treatment used to process the data was Bivariate and Independent-Samples T Test. The summary of all tested results is as follows:

Group A

Hypothesis 1: There is a significant relationship between environmental knowledge and the green purchase intention of the collectivistic (Chinese) consumers at the .01 significant level and correlation coefficient is .415.

Hypothesis 2: Collectivistic (Chinese) consumers' attitudes are correlated with the green purchase intention at the .01 significant level and correlation coefficient is .681.

Hypothesis 3: There is a significant relationship between environmental concern and the green purchase intention of the collectivistic (Chinese) consumers at the .01 significant level and correlation coefficient is .199.

Hypothesis 4: There is a significant relationship between environmental knowledge and the attitudes of the collectivistic (Chinese) consumers at the .01 significant level and correlation coefficient is .488.

Hypothesis 5: There is a significant relationship between environmental concern and the attitudes of the collectivistic (Chinese) consumers at the .01 significant level and correlation coefficient is .671.

Hypothesis 6: There is a significant relationship between social influence and the green purchase intention of the collectivistic (Chinese) consumers at the .01 significant level and correlation coefficient is .504.

Group B

Hypothesis 7: There is a significant relationship between environmental knowledge and the green purchase intention of the individualistic (American) consumers at the .01 significant level and correlation coefficient is .447.

Hypothesis 8: Individualistic (American) consumers' attitudes are a correlated with the green purchase intention at the .01 significant level and correlation coefficient is .450.

Hypothesis 9: There is a significant relationship between environmental concern and the green purchase intention of the individualistic (American) consumers at the .01 significant level and correlation coefficient is .336.

Hypothesis 10: There is a significant relationship between environmental knowledge and the attitudes of the individualistic (American) consumers at the .01 significant level and correlation coefficient is .411.

Hypothesis 11: There is a significant relationship between environmental concern and the attitudes of the individualistic (American) consumers at the .01 significant level and correlation coefficient is .423.

Hypothesis 12: There is a significant relationship between social influence and the green purchase intention of the individualistic (American) consumers at the .01 significant level and correlation coefficient is .300.

Group C

Hypothesis 13: There is a significant difference in environmental knowledge between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name at the .05 significant level.

Hypothesis 14: There is a significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name at the .05 significant level.

Hypothesis 15: There is no significant difference in environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name at the .05 significant level.

Hypothesis 16: There is a significant difference in social influence between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name at the .05 significant level.

Hypothesis 17: There is a significant difference in green purchase intention between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name at the .05 significant level.

6.2 Discussion and Conclusions

6.2.1 *Discussion and Implication of Hypotheses*

For the analysis of hypotheses testing, hypothesis 13 to 17 which consist of group one are processed via Independent-Samples T Test to explore whether there are differences in both dependent and independent variables between American and Chinese consumers. The results indicate that the null hypothesis 15 (H_{15o}) failed to be rejected. It means that the researcher failed to find the differences in environmental concern between American and Chinese consumers.

Hypothesis 1 (H_1) and Hypothesis 7 (H_7): Results from the testing of hypotheses show that there is a moderate positive relationship between environmental knowledge and the green purchase intention in American and Chinese consumers also. Both findings confirmed a positive correlation between environmental knowledge and the green purchase intention. Thus, the result indicates the more knowledgeable American and Chinese consumers regarding environmental issues, the more likely their intention to purchase green product. Mostafa (2007) and Chan (2000) stated that which they highlighted the importance of environmental knowledge in the prediction of green consumer behavior. Moreover, Rahbar and Tan (2011) found that environmental knowledge has a significant influence on the green purchase behavior of Penang green volunteers.

Hypothesis 2 (H_2) and Hypothesis 8 (H_8): Results from the testing of both hypotheses show that there is a moderate positive relationship between attitudes and the green purchase intention in American consumers and Chinese consumers also. Both findings confirmed a positive correlation between attitudes and the green purchase intention. Kotchen and Reiling (2000) who found a positive relation between the green purchase intention and attitudes. Leonidou et al. (2010) reported that attitudes toward green purchase will stimulate green purchasing intention.

Hypothesis 3 (H_3) and Hypothesis 9 (H_9): Results from the testing of both hypotheses show that there is a weak positive relationship between environmental concern and the green purchase intention in American consumers and Chinese consumers also. Both findings confirmed a positive correlation between environmental concern and the green purchase intention. The result indicates the more concerned American and Chinese consumers are towards the environment, the more likely are their intention to purchase green products. Kim and Choi (2005) stated that where environmental concerns have a direct and positive influence on the customer purchasing intention of the green products. This suggested that consumers with strong environmental concern might be interested in consumption of products that reflect that concern. Lee (2008) also stated that stresses that environmental concern can be identified as one of the important factors that affect consumers' green purchasing behavior.

Hypothesis 4 (H_4) and Hypothesis 10 (H_{10}): Results from the testing of both hypothesis show that there is a moderate positive relationship between environmental knowledge and attitudes in American and Chinese consumers. Arcury (1990) reported a significant relationship between environmental knowledge and environmental attitudes. In addition, Sharifahet et al. (2005) conducted a study in Malaysia that indicated that environmental knowledge was significant and correlated positively with environmental attitudes.

Hypothesis 5 (H_5) and Hypothesis 11 (H_{11}): Results from the testing of both

hypotheses show that there is a moderate positive relationship between environmental concern and attitudes in American consumers and Chinese consumers also. Both findings confirmed a positive correlation between environmental concern and attitudes. Borchardt (1999) stated that environmental concern will affect the extent of his/her environmental attitude, and environmental attitude will influence his/her attitude, and to a positive attitude toward people will participate in the green product purchase and consumption activities.

Hypothesis 6 (H_6): Results from the testing of hypothesis show that there is a moderate positive relationship between social influence and green purchase intention in Chinese consumers. Bearden and Etzel (1982) stated that there are different sources of information provider in a society, among them reference groups play major role that affect Malaysian consumers involvement in green purchase situations.

Hypothesis 12 (H_{12}): Results from the testing of hypothesis show that there is a weak positive relationship between social influence and green purchase intention in American consumers. Loe (2008) stated that which the social influence affects European adolescents' green purchasing behavior, when compared to other factors, this was not the most important.

Hypothesis 13 (H_{13}): The researcher found that there is a significant difference between the collectivistic (Chinese) and the individualistic (American) consumers' environmental knowledge with respect to name. The mean of environmental knowledge in terms of name for American consumers (Mean = 6.13) is greater than that of Chinese consumers (Mean = 5.29). In addition, American consumers show the highest mean value at the statement of "I am very knowledgeable about environmental issues". The score (American consumer = 6.58) is close to 7 (strongly agree). Chinese consumers show the highest mean value at the statement of "Mankind is severely abusing the environment". The score (Chinese consumer = 5.61) is close to 6 (moderately agree). This result proved that American consumers are more subjective, but Chinese consumers are more objective.

Hypothesis 14 (H_{14}): The researcher found that there is a significant difference in attitudes between the collectivistic (Chinese) and the individualistic (American) consumers with respect to name. The mean of attitudes in terms of name for American consumers (Mean = 5.71) is greater than that of Chinese consumers (Mean = 4.91). In addition, American consumers show the highest mean value at the same statement of "Citizens should recycle their household waste". The score (American consumers = 6.69) is close to 7 (strongly agree). Chinese consumers show the highest mean value at the statement of "I think environmental protection is meaningfully". The score (Chinese consumer = 5.63) is close to 6 (moderately agree). In other words, this result proved that American consumers pay more attention to small details of environmental protection, but Chinese consumers care about the overall effect of environmental protection.

Hypothesis 15 (H_{15}): Results from hypothesis fifteen indicate that the null hypothesis 15 (H_{15o}) failed to be rejected. It means that there is no significant difference environmental concern between the collectivistic (Chinese) and the individualistic (American) consumers with respect to environmental concern. It implies that the researcher cannot find the different effect from the environmental concern when being compared with the two groups.

Hypothesis 16 (H_{16}): For hypothesis sixteen, the result of analysis show that there is a significant difference between the collectivistic (Chinese) and the individualistic (American) consumers with respect to social influence. The mean of social influence for American consumers (Mean = 5.36) is less than that of Chinese consumers (Mean = 5.88). American consumers show the highest mean value at the statement of "Anti-pollution laws should be enforced more strongly". The score (American consumer = 6.19) is close to 7 (strongly agree). Chinese consumers show the highest mean value at the statement of "I often share information regarding green products with my friends/parents". The score (Chinese consumer = 6.26) is close to 6 (moderately agree). In other words, due to the different culture, American consumers

believe that the written form of legal, but Chinese believe that the word of mouth.

Hypothesis 17 (H_{17}): The researcher found that there is a significant difference between the collectivistic (Chinese) and the individualistic (American) consumers with respect to green purchase intention. The mean of environmental knowledge in terms of name for American consumers (Mean = 6.01) is greater than that of Chinese consumers (Mean = 5.16). In addition, American consumers show the highest mean value at the statement of "When I intend to buy green products I will consider whether their package is also green". The score (American consumer = 6.69) is close to 7 (strongly agree). Chinese consumers show the highest mean value at the statement of "When I intend to buy green products I will consider whether their price". The score (Chinese consumer = 5.98) is close to 6 (moderately agree). In other words, this result proved that American consumers care about their direct sense, but Chinese consumers are more sensitive to price.

6.2.2 *Conclusions*

This research aims to investigate the differences in terms of environmental knowledge, environmental concern, attitudes, social influence, and green purchase intention between Chinese and the American consumers. Additionally, the relationship between environmental knowledge, environmental concern and attitudes is also tested. The total of 400 consumers consisted of two groups and two hundred from American the lefts from Chinese. The consumers of these two groups were assessed by employing self-administered questionnaires that were distributed to the ten random department stores and shopping malls branches in Shanghai, as a result of a sampling procedure within January 2013.

This research focuses on the five dimensions of environmental knowledge, environmental concern, attitudes, social influence, and green purchase intention. The designed demographic profile contains age category, gender, educational level, occupation, monthly income, marital status and family status of consumers. The majority of all consumers are age between 21 and 30 years old, female, bachelor's

degree, student, low level income, single and with no child. Regarding the hypotheses testing, SPSS program is used to analyze these groups in this research.

The findings of Group A and B indicate that all the null hypotheses (H_{1o}-H_{12o}) were rejected. It means there is a relationship between environmental knowledge, environmental concern, attitudes, social influence and green purchase intention in both Chinese and American consumers. Group C compares differences in environmental knowledge, environmental concern, attitudes, social influence and green purchase intention between Chinese and American consumers, this group is consisted of five hypotheses (H_{13o}-H_{17o}). The outcomes of it show that the null hypothesis thirteen, fourteen, sixteen and seventeen (H_{13o}, H_{14o}, H_{16o}, H_{17o}, respectively) were rejected but the null hypothesis fifteen (H_{15o}) failed to reject. Therefore, the researcher can state that there is a difference in green purchase intention in terms of environmental knowledge, attitudes, and social influence between Chinese and American consumers. In contrast, no difference exists in environmental concern between these consumers.

6.3 Recommendations

The recommendations of this study are based on the research findings, observations and analysis for American and Chinese consumers as following:

Based on the same demographic factors of American and Chinese consumers' age, gender, educational level, occupation, income level, marital status and family status, the researcher would like to recommend that for the upcoming introduction of green products firms, the marketers could use two-way stretch of marketing approach when they aim to launch green products. When they will introduce a new green product into an already established line of products whereby the newly introduced green product should come in at a higher price point for American consumers because of their have high income level.

But for Chinese consumers, they could attempt to use an already established brand to sell more of similar green products at a lower price point because of most of

Chinese consumers have low income level. Due to Chinese consumers are more sensitive to the price, marketers should use penetration and psychological pricing strategy to attract these consumers at the same time increase sales and expand market share. Similarly, the result from Peattie's (1999) study, the researcher suggests that marketers should use marketing approaches to build the green market in order to attract different consumers.

For the firms that have been the introduction of green products, the researcher would like to recommend that they could use demographic segmentation strategy to classify these consumers. Then, according to the different segment integrated the green products to satisfy consumers' needs. Similarly, the result from Diamantopoulos's (2003) study, the researcher suggested that different segments of consumers could also be identified, according to their attitudes toward green products, and attractive company offerings should be designed for each segment.

Based on the result of hypothesis one, the researcher found that the environmental knowledge positively and significantly affects the green purchase intention of Chinese consumers. The researcher would like to recommend that Chinese government should make great efforts to popularize environmental protection knowledge. In this research, most of respondents are young consumers who should be properly educated towards the green concept and the influence of green purchasing and eco-friendly products on the environment so that they would gain stronger beliefs towards the importance of green purchasing and consequently lead to the increased purchasing intention of the young consumers.

Based on the result of hypothesis two, the researcher found that attitudes positively and significantly affect the green purchasing intention of Chinese consumers. Therefore, the researcher would like to recommend that Chinese consumers' attitudes should need to enhance positively towards the green purchasing intention through proper education and acknowledgement. Chinese consumers would

114

hold more positive attitude when they are properly informed and educated on how important and effective their role would be concerning the environmental issues.

Based on the result of hypothesis three, the researcher found that environmental concern positively and significantly affects the green purchase intention. The researcher would like to recommend that the Chinese government should make better use of cultural heritage to improve citizens' concern for the environment and achieve more sustainable national development.

Based on the result of hypothesis four, the researcher found that environmental knowledge positively and significantly affects the attitudes. The researcher would like to recommend that proper educational programs and campaigns should start as early as kindergarten level to cultivate people awareness and positive green attitude among the citizens. Similarly, the result from Chan's (2004) study, the researcher found that there is positive influences of education on green purchase intention and thus the suggestion that policy makers need to invest more in raising the eco-educational level of their citizens.

Based on the result of hypothesis five, the researcher found that environmental concern positively and significantly affects the attitudes. The researcher would like to recommend that marketers of the companies, private and public sector organizations, non-government organizations (NGOs), should highlight the significance of environmental protection in their businesses advertising, newsletters to educate the public regarding the masses of the looming threats of environments in China.

Based on the result of hypothesis six, the researcher found that social influence positively and significantly affects the green purchasing intention of Chinese consumers. Therefore, the researcher would like to recommend that public awareness needs to be increased regarding the green purchasing and its significant influence on the environment and more importantly influencers and people who have stronger influence on Chinese consumers must be more educated. In addition, testimonials

from friends and family towards the green products become easily acceptable and believable.

Based on the result of hypothesis seven, the researcher found that environmental knowledge positively and significantly affects the green purchasing intention of American consumers. The researcher would like to recommend that international companies should increase publicity and communicate the negative environmental impacts of conventional products to highlight the relative benefits of green consumption to nature and individuals.

Based on the result of hypothesis eight, the researcher found that attitudes positively and significantly affect the green purchasing intention of American consumers. The researcher would like to recommend that marketers should focus on educating consumers towards social responsibility practices. Marketers should also emphasize on highlighting the significance of the consumers' participations in green movements. Moreover, the consumers should be exposed and introduced to green products through a systematic approach taken by marketers. This could include educational campaigns and advertisements to involve the consumers with the green products and understand its significance in different scales.

Based on the result of hypothesis nine, the researcher found that environmental concern positively and significantly affects the green purchasing intention of American consumers. The researcher would like to recommend that marketers of international companies need to put efforts into promoting environmental issues, impacts, and problems cause the attention of American consumers so that they will become more aware of the environment and the importance of purchasing green products.

Based on the result of hypothesis ten, the researcher found that environmental knowledge positively and significantly affects the attitudes of American consumers. The researcher would like to recommend that Chinese government should be in the

116

community, department stores and shopping malls to do some environmental publicity.

Based on the result of hypothesis eleven, the researcher found that environmental concern positively and significantly affects the attitudes of American consumers. The researcher would like to recommend that marketers could be held some environmental activities at department stores and shopping malls and invited the public to participate in the activities in order to improve people's environmental concern.

Based on the result of hypothesis twelve, the researcher found that social influence positively and significantly affects the green purchase intention of American consumers. Due to American consumers tend to have more trustworthy to the advertisement when making a decision in purchasing and television, newspaper, magazine and internet provide them a lot of information every day, the researcher would like to recommend that green products promote on the advertisement through television, newspaper, magazine and internet could attract more American consumers.

Based on the result of hypothesis thirteen, the researcher found that there is a difference in environmental knowledge between American and Chinese consumers. The researcher would like to recommend that due to American consumers are more subjective and Chinese consumers are more objective, marketers could use different promotion strategy. For American consumers, the advertisement of green products could add more emotion. Then, the advertising will become more vivid and stimulate consumers' green purchase intention. For Chinese consumers, the advertisement should provide them more facts that prove the green products have more beneficial to the environment. Similarly, the result from Chan and Lau's (2000) study, the researchers suggest that promotion tools can help consumers to get more sensitive information.

Based on the result of hypothesis fourteen, the researcher found that there is a difference in attitudes between American and Chinese consumers. The researcher

would like to recommend that for American consumers, marketer should inform the process of how the green products protect the environment in the advertisement. But for Chinese consumers, marketer should tell them the concept of green products and why they launch these products. Similarly, the result from Oliver's (1999) study, the researcher suggests that the green advertisement is one of good marketing tools to promote the green products for Malaysian consumers.

Based on the result of hypothesis fifteen, the researcher found that there is no difference in environmental concern between American and Chinese consumers. The researcher would like to recommend that marketers could use different marketing strategies on the same or similar green products for American and Chinese consumers in order to satisfy their different needs.

Based on the result of hypothesis sixteen, the researcher found that there is a difference found in social influence between American and Chinese consumers. The researcher would like to recommend that marketers could use public relation and sales representatives to build a public trust and transmit the green products information for Chinese consumers. Thus, word-of-mouth marketing or referral marketing can be an effective way in promoting green purchasing behavior to this consumer group. But for American consumers, marketers could add a certificate or guarantee in the green products or on the package of the green products. Similarly, the result from Adge's (2008) study, the researcher recommend that family and friends trump all others consumer touch points when it comes to influencing purchases. Moreover, consumers trust friends above experts when it comes to green products recommendations. Ali and Ahmad (2012) also suggested that word-of-mouth marketing can be an effective way in promoting environment friendly behaviors to this particular consumer group. Online social networks, for example, Twitter and Facebook have become popular and even a 'must have' account for young adults to get connected with friends.

Based on the result of hypothesis seventeen, the researcher found that there is a difference in green purchase intention between American and Chinese consumers.

The researcher would like to recommend that marketer could use bonus packs for Chinese consumers. If consumers buy more than three green products, the price will be cheaper. For American consumers, marketers could use sampling. When companies launch the new green products, marketer could demonstrate the sample of the product in department stores or shopping malls. Alternatively, a small sample of the green product could be included in an environmental magazine advertisement. When a professional person provided consumers with free green product samples. First, the professional person received a package of samples from the company.

6.4 Further Study

Due to the time limitation, this study cannot gain deeper insight into those relationships, thus, according to this research; there are some implications for the future research. Several further studies are suggested and shown as follows:

Firstly, further study may study other variables that may affect the green purchase intention such as green perceived value, green perceived risk, and green trust different from the concept in conceptual framework.

Secondly, further study may broaden the research to investigate whether or not the green purchase intention with other nationality consumers has different perception. Different perception could stimulate marketers use different green marketing strategies to satisfy consumers' need.

Thirdly, this study did not identify the green products; as a result the respondents' response might be vary for different categories of green products. Further study should address this issue by considering focused green products.

Bibliography

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, (50), 179-211.

Ali, A., Khan, A. A., Ahmed, I. and Shahzad, W. (2011). Determinants of Pakistani Consumers' Green Purchase Behavior: Some Insights from a Developing Country. *International Journal of Business and Social Science*, 2 (3), 217-226.

Astous, A. D. and Legendre, A, L. (2009). Understanding Consumers' Ethical Justifications: A Scale for Appraising Consumers' Reasons for Not Behaving Ethically. *Journal of Business Ethics*, 87 (2), 255-268.

Beckford, C. L., Jacobs, C., Williams, N. and Nahdee, R. (2010). Aboriginal Environmental Wisdom, Stewardship, and Sustainability: Lessons from the Walpole Island First Nations, Ontario, Canada". *Journal of environmental education*, 41 (4), 239-248.

Bodet, G. (2008). Customer satisfaction and loyalty in service: Two concepts, four constructs, several relationships. *Journal of Retailing and Consumer Services*, (15), 156-162.

Chan, R. Y. K. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing*, 18 (4), 389-413.

Chan, R. Y. K. (2004). Consumer responses to environmental advertising in China. *Marketing Intelligence & Planning*, 22 (4), 427-37.

Chan, R. Y. K. and Lau, L. B. Y. (2002). Explaining Green Purchasing Behavior. *Journal of International Consumer Marketing*, 14 (2), 9-40.

Chatterjee, P. (2009). Green brand extension strategy and online communities. *Journal of Systems and Information Technology*, 11 (4), 367-84.

Chen, T. B., and Chai, L. T. (2010). Attitude towards the Environment and Green Products: Consumers' Perspective. *Management Science and Engineering*, 4(2), 27-39.

D'Souza, C., Taghian, M., and Khosla, R. (2007). Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. *Journal of Targeting, Measurement and Analysis for Marketing*, 15 (2), 69-78.

D'Souza, C., Taghian. M. and Lamb. P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate Communications: An International Journal,* 11 (2), 162-173.

Davis, J. J. (1993). Strategies for environmental advertising. *The Journal of Consumer Marketing*, 10 (2), 19-36.

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R. and Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, 56 (2), 465-80.

Elham, R. and Nabsiah, A. W. (2011).Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, 12 (2), 73-83.

Follows, S.B., & Jobber, D. (2000). Environmentally responsible purchase behavior: A test of a consumer model. *European Journal of Marketing*, (34), 723-746.

Fraj, E., and Martinez, E. (2006). Environmental Values and Lifestyles as Determining Factors of Ecological Consumer Behavior: An Empirical Analysis. *Journal of Consumer Marketing*, 23(3), 133-144.

Grant, J. (2008). Viewpoint Green Marketing. *Emerald Group Publishing Limited – Strategic Direction*, 24 (6), 25-27.

Grunert, S.C. (1993). Green consumerism in Denmark: Some evidence from the Oko foods-project. *Der Markt*, Vol. 32 No. 3, 140-151.

Haron. S. A., Paim. L. and Yahaya. N. (2005). Towards sustainable consumption: an examination of environmental knowledge among Malaysians. *International Journal of Consumer Studies*, 29 (5), 426-436.

Hines, J.M., Hungerford, H.R., & Tomera, A.N. (1987). Analysis and Synthesis of Research on Responsible Environmental Behavior: A Meta-analysis. *Journal of Environmental Education*, (18), 1-8.

Hoch, S. J., & Deighton, J. (1989). Managing what consumers learn from experience. *Journal of Marketing*, (53), 1-20.

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 75-90.

Hwang, Y.H., Kim, S. I., & Jeng, J.M. (2000). Examining the Causal relationships among Selected Antecedents of Responsible Environmental Behavior. *The journal of environmental education*, 31(4), 19-25.

Kalafatis, S., Pollard, M., East, R. and Tsogas, M. (1999). Green marketing and Azje's theory of planned behavior: A cross-market examination. *Journal of Consumer Marketing*, 16 (5), 441-460.

Lampe, M., and Gazdat, G. M. (1995). Green Marketing in Europe and the United States: an Evolving Business and Society Interface. *International Business Review*, 4 (3), 295-312.

Laroche, M., Bergeron, J. and Barboro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18 (6), 503-520.

Mainieri, T. and Barnett, E. (1997). Green buying: the influence of environmental concern on consumer behavior, *Journal of Social Psychology*, 137 (2), 189-204.

Manaktola, K. and Jauhari, V. (2007). Exploring consumer attitude and behavior towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19 (5), 364-377.

Manrai, L. A., Manrai, A. K., Lascu, D. N. and Ryans-Jr, J. K. (1997). How Green-Claim Strength and Country Disposition Affect Product Evaluation and Company Image. *Psychology & Marketing*, 14 (5), 511-537.

Mostafa, M. M. (2007). A Hierarchical Analysis of the Green Consciousness of the Egyptian Consumer. *Psychology & Marketing*, 24 (5), 445-473.

Malhotra, N. K. & McCort, J. D. (2001). A cross-cultural comparison of behavioral intention models: Theoretical consideration and an empirical investigation. *International Marketing Review*, 18 (3), 235-269.

Park, C. W., Mothersbaugh, D. L., & Feick, L. (1994). Consumer knowledge assessment. Journal of Consumer Research, (21), 71-82.

Paco, A. D. and Raposo, M. (2009). Green segmentation: an application to the Portuguese consumer market. *Marketing Intelligence & Planning*, 27 (3), 364-379.

Pickett-Baker, J. and Ozaki, R. (2008). Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, 25 (5), 281-293.

Polonsky. M. J. (1994). "An Introduction to Green Marketing". *Electronic Green Journal*, 1 (2), 1-10.

Roberts, J. A. (1996). Green consumers in the 1990s: profile and implications for advertising. *J Bus Res*, 36 (3). 217-231.

Ramli, N.A.R. (2009). Awareness of eco-label in Malaysia's green marketing initiative. *International Journal of Business and Management*, 4 (8), 132-141.

Sarkis, J. (2001). Manufacturing's role in corporate environmental sustainability Concerns forthe new millennium. *International Journal of Operations & Production Management*, 21 (6), 666-686.

Schlegelmilch, B. B., Bohlen, G. M., and Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental Consciousness. *European Journal of Marketing*, 30 (5), 35-55.

Sharma, S., Durand, R. M., and Gur-Arie, O. (1981). Identification and Analysis of Moderator Variables. *Journal of Marketing Research*, 18 (3), 291-300.

Straughan, R. D. and Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16 (6), 558-575.

Schann, J. and Holzer, E. (1990). Studies of individual environmental concern: The role of knowledge, gender and background variables. *Environment and Behavior*, 22 (6), 767-786.

Schlegelmilch, B., Bohlen, G., and Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, 30 (5), 35-56

Schwepker-Jr, C. H. and Cornwell, T. B. (1991). An Examination of Ecologically Concerned Consumers and Their Intention to Purchase Ecologically Packaged Products. *Journal of Public Policy & Marketing*, 10 (2), 77-101.

Sarigöllü, E. (2009). A Cross-Country Exploration of Environmental Attitudes. *Environment and Behavior*, 41 (3), 365-386.

Tanner, C. and Kast, S.W. (2007). Promoting Sustainable consumption: determinants of green purchases by Swiss consumers. *Psychology & Marketing*, 20 (10), 883.

Yam-Tang, E. P. Y., and Chan, R. Y. K. (1998). Purchasing behaviors and perceptions of environmentally harmful products. *Marketing Intelligence & Planning*, 16 (6), 356-362.

Yau, O. H. M. (1988). Chinese cultural values: Their dimensions and marketing implications. *European Journal of Marketing*, 22 (5), 44-57.

Appendix A
English Version Questionnaire

Questionnaire

This questionnaire has been developed by the MBA student from Assumption University that is a part of Thesis, under the purpose of education only, and the information will be treated with high confidentiality. The objective of questionnaire is to analyze green purchase intention between American and Chinese consumers in Shanghai shopping malls and department stores. Please answer the following questions by mark √ in the space given below and do kindly answer truthfully and complete all questions.

Part I: Screening Questions

1. Are you American? (If you answer "No", please return this questionnaire; if you answer "Yes", please go to Q2)

    □   Yes   □   No

2. Have you ever bought the green products? (If you answer "No", please answer Q3; if you answer "Yes", please return this questionnaire)

    □   Yes   □   No

3. Do you intend to buy the green products? (If you answer "Yes", please complete this questionnaire; if you answer "No", please return it)

    □   Yes   □   No

Part II: Please mark √ within the level from (1) **Strongly Disagree** (2) **Moderately Disagree** (3) **Slightly Disagree** (4) **Neutral** (5) **Slightly Agree** (6) **Moderately Agree** (7) **Strongly Agree** in the table below.

Environmental Knowledge	Strongly Disagree ↔ Strongly Agree						
	1	2	3	4	5	6	7
4. Human must live in harmony with nature in order to survive.							
5. Synthetic pesticide takes long time to deteriorate into harmless chemicals.							
6. I am very knowledgeable about environmental issues.							
7. The earth is like a spaceship with only limited room and resources.							
8. Mankind is severely abusing the environment.							
9. When humans interfere with nature it often produces disastrous consequences.							
Environmental Concern	1	2	3	4	5	6	7
10. I am very concerned about the environment.							
11. I would be willing to reduce my consumption to help protect the environment.							
12. I would give part of my own money to help protect wild animals.							

	1	2	3	4	5	6	7
13. I am extremely worried about the world's environment and what it will mean for my future.							
14. I think that much of the food I eat is contaminated with pesticides.							
15. I think that humans don't have the right to modify the natural environment to suit their needs.							
Attitudes toward Green Purchase	**1**	**2**	**3**	**4**	**5**	**6**	**7**
16. Citizens should recycle their household waste.							
17. It is essential to promote green living in the world.							
18. More environmental protection works are needed in the world.							
19. I think it is meaningful to protect environment.							
20. It is wise for each country to spend a vast amount of money on promoting environmental protection.							
21. I understand the environmental phrases and symbols on product package.							
22. Green product is a good idea.							
23. I have a favorable attitude towards a green version of a product.							

Social Influence	1	2	3	4	5	6	7
24. I often share information regarding green products with my friends.							
25. I pay attention to environmental messages in advertisements.							
26. I watch TV programs that are devoted to environmental topics/issues.							
27. Major social changes are necessary to protect the natural environment.							
28. Anti-pollution laws should be enforced more strongly.							
29. I read magazines/newspapers that have environmental topics/issues.							
30. My friends often discuss environmental related topics/issues with me.							
31. My parents/friends support me to buy green products.							

Part III: Please mark √ within the level from (1) **Strongly Disagree** (2) **Moderately Disagree** (3) **Slightly Disagree** (4) **Neutral** (5) **Slightly Agree** (6) **Moderately Agree** (7) **Strongly Agree** in the table below.

Green Purchase Intention	Strongly Disagree ↔ Strongly Agree						
	1	2	3	4	5	6	7
32. When I have a choice between two equal products, I intend to buy the one less harmful to other people and the environment.							
33. I intend to buy eco-friendly products in the future.							
34. I intend to buy products that are made from recycled materials.							
35. I intend to switch products for ecological reasons.							
36. When I intend to buy green products I will consider whether their advertisement is also green.							
37. When I intend buy green products I will consider whether their producing process is also green.							
38. When I intend to buy green products I will consider whether their package is also green.							

39. When I intend to buy green products I will consider their price.						

Part IV: Demographic Characteristics

40. Age Category

- ○ Less than 21 years old   ○ 21-30 years old
- ○ 31-40 years old   ○ 41-50 years old
- ○ More than 51 years old

41. Gender

- ○ Male   ○ Female

42. Educational Level

- ○ High school graduate or less   ○ Bachelor's degree
- ○ Master's degree   ○ Doctor's degree

43. Occupation

- ○ Public Sector Employee   ○ Private Sector Employee
- ○ Student   ○ Self-employed
- ○ Government   ○ Other

44. Monthly Income

- ○ Low level   ○ Middle level
- ○ Medium to high level   ○ High level
- ○ Very high level

45. Marital Status

- ○ Single   ○ Married   ○ Divorced / Widowed

46. Family Status

- ○ No child
- ○ Have (a) child/children

♦ **Thank you for your participation!** ♦

Appendix B
Chinese Version Questionnaire

调查问卷

亲爱的先生、女士：

　　真诚的邀请您（你）参加一个关于绿色产品购买意图的研究项目。本项目通过研究对于环境的知识，关注度，态度以及社会影响力，分析找出影响这一意图的决定因素。为此，研究者设计了一个简短的问卷，从不同的角度对影响消费者购买意图的各种心理及社会因素提出问题。在此衷心希望您（你）能够阅读并完成问卷，此份问卷会占用您（你）约五分钟的时间。

　　通过您（你）的参与，希望能够对影响消费者购买绿色产品的意图的决定因素获得更全面且深入的了解，从而对绿色消费的进一步发展做出贡献。本问卷采用匿名方式，您（你）的回复信息只会被用作课题研究之用，并且完全保密。请您（你）认真阅读并准确选择最符合您（你）意图的答案。答案没有对与错之分，只希望了解您（你）的个人观点。

　　本问卷属于自愿参与，但真诚希望您（你）能在百忙之中抽出时间来协助完成这一调查问卷。本项目得到了泰国易三仓大学商学院（Assumption University of Thailand）的批准，如果您（你）对此次研究的权利有任何担心，您（你）可以

直接与学院研究中心获得联络：grad@au.edu。

非常感谢您（你）的参与！

第一部分：筛选，请用√标记以下空白处。

1、请问您（你）有购买过绿色产品吗？（如回答"没有"，请转到第 2 题并完成之后的所有问题；如回答"有"，请交还该问卷）

○ 有　　　　○ 没有

2、请问您（你）对于绿色产品有购买意向吗？（如回答"有"，请继续完成之后所有的问题；如回答"没有"请交还该问卷）

○ 有　　　　○ 没有

第二部分：请用√标记以下空白处（1）强烈反对，（2）比较反对（3）稍微有点反对（4）保持中立（5）稍微有些赞同 （6）比较赞同（7）非常赞同。

关于环境的知识	强烈反对 ↔ 非常赞同						
	1	2	3	4	5	6	7
3、人类只有在与自然必须和谐相处下才能更好的生存。							
4、合成农药需要较长时间才能形成无害的化学品。							
5、我非常了解环境问题。							
6、地球就像一艘太空飞船只有有限的空间和资源。							
7、人类严重地滥用环境。							
8、当人类干扰自然，往往会导致灾难性的后果。							
对环境的关注度	1	2	3	4	5	6	7
9、我非常关注环境。							
10、我会愿意减少我的消费来帮助环保。							
11、我会捐出自己的一部分钱用来保护野生动物。							
12、我非常担心整个世界的环境以及它对我的未来的影响。							
13、我认为目前吃的大部分的食物都被农药污染							

过。							
14、我认为人类没有权利去改变自然环境以满足其需求。							
对于绿色购买行为的态度	1	2	3	4	5	6	7
15、市民应循环利用家居废物。							
16、至关重要的是在世界上推广绿色生活。							
17、世界需要更多的环保工程。							
18、我认为环保是很有意义的。							
19、每个国家支出大量财力用来推动环保是个明智之举。							
20、我理解产品包装上的一些关于环保的短语以及其标签的含义。							
21、绿色产品是一个好主意。							
22、对于绿色产品我有一个良好的态度。							
社会的影响	1	2	3	4	5	6	7
23、我经常与朋友一起分享有关绿色产品的信息。							
24、我经常关注有关环保信息广告。							
25、我经常看一些致力于环保问题的电视节目。							
26、重大的社会变化是用以环保的必要条件。							

27、应该强制实施反对污染的法律。							
28、我经常读一些有关环保问题的报刊或杂志。							
29、朋友经常与我讨论一些与环境相关的问题。							
30、父母大力支持我购买绿色产品。							
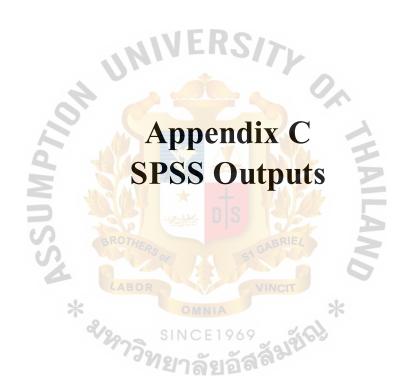
第三部分：请用√标记以下空白处（1）强烈反对，（2）比较反对（3）稍微有点

反对（4）保持中立（5）稍微有些赞同 （6）比较赞同（7）非常赞同。

绿色购买意向	强烈反对 ↔ 非常赞同						
	1	2	3	4	5	6	7
31、如果要我在两个相同产品之间做选择，我会打算购买于他人和环境危害较少的那个。							
32、将来我会想购买环保产品。							
33、我想买一些产品是用回收的材料做的。							
34、我想购买绿色产品是由于生态原因。							
35、当我打算购买绿色产品时我会考虑其广告是否也是环保的。							
36、当我打算购买绿色产品时我会考虑其包装是否也是环保的。							
37、当我打算购买绿色产品时我会考虑其生产过程是否也是环保的。							
38、当我打算购买绿色产品时我会考虑其成本的高低。							

第四部分：个人特征。请用√标记在以下圆圈内。

39、年龄

○ 小于 21 岁　　　　○ 21-30 岁　　　　○ 31-40 岁

○ 41-50 岁　　　　○ 大于 50 岁

40、性别

○ 男　　　　○ 女

41、受教育程度

○ 高中　　　　○ 本科

○ 硕士　　　　○ 博士

42、职业

○ 国企　　　○ 民企　　　○ 学生

○ 私企　　　○ 政府　　　○ 其他

43、月收入

○ 低收入　　　　○ 中等收入

○ 中等偏高收入　　○ 高收入　　　○ 极高收入

44、婚姻状况

○ 单身　　　○ 已婚　　　　○ 离婚或丧偶

45、家庭状况

○ 没有孩子

○ 有孩子

Appendix C
SPSS Outputs

SPSS Output

Pretest

Environmental Knowledge

Reliability Statistics

Cronbach's Alpha	N of Items
.820	6

Environmental Concern

Reliability Statistics

Cronbach's Alpha	N of Items
.642	6

Attitudes

Reliability Statistics

Cronbach's Alpha	N of Items
.777	8

Social Influence

Reliability Statistics

Cronbach's Alpha	N of Items
.621	8

Green Purchase Intention

Reliability Statistics

Cronbach's Alpha	N of Items
.650	8

Descriptive Analysis

Environmental Knowledge between American and Chinese Consumers by using Mean and

Standard Deviation

Report

Consumers		Humans must live in harmony with nature in order to survive.	Synthetic pesticide takes long time to deteriorate into harmless chemicals.	I am very knowledgeable about environmental issues.	The earth is like a spaceship with only limited room and resources.	Mankind is severely abusing the environment.	When humans interfere with nature it often produces disastrous consequences.	EKMEAN
American	Mean	6.52	6.16	6.58	6.57	5.39	4.56	6.1300
	N	200	200	200	200	200	200	200
	Std. Deviation	.902	1.068	.910	.894	1.078	2.161	.72032
Chinese	Mean	4.89	5.20	5.59	5.19	5.61	5.28	5.2917
	N	200	200	200	200	200	200	200
	Std. Deviation	1.219	1.316	1.245	1.289	1.016	1.076	.87231
Total	Mean	5.70	5.60	6.09	5.00	5.00	4.91	5.7100
	N	400	400	400	400	400	400	400
	Std. Deviation	1.345	1.289	1.196	1.307	1.115	1.740	.90230

Environmental Concern between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		I am very concerned about the environment.	I would be willing to reduce my consumption to help protect the environment.	I would give part of my own money to help protect wild animals.	I am extremely worried about the state of the world's environment and what it will mean for my future.	I think that much of the food here is contaminated with pesticides.	I think that humans don't have the right to modify the natural environment to suit their needs.	ECMEAN
American	Mean	6.22	6.10	5.60	3.53	5.25	5.47	5.3617
	N	200	200	200	200	200	200	200
	Std. Deviation	.966	.965	1.272	1.843	1.957	1.854	.91105
Chinese	Mean	5.57	5.55	5.51	5.17	4.92	4.74	5.2425
	N	200	200	200	200	200	200	200
	Std. Deviation	.985	.971	.951	.925	1.113	1.221	.69673
Total	Mean	5.89	5.82	5.56	4.35	5.09	5.10	5.3021
	N	400	400	400	400	400	400	400
	Std. Deviation	1.026	1.005	1.122	1.670	1.599	1.609	.81218

Attitudes between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		Citizens should recycle their household waste.	It is essential to promote green living in the world.	More environmental protection work is needed in the world.	I think environmental protection is meaningful.	It is wise for the world to spend a vast amount of money on promoting environmental protection.	I understand the environmental phrases and symbols on product's package.	Green products are a good idea.	Have a favorable attitude towards a green version of a product.	ATTMEAN
American	Mean	6.69	3.54	5.57	5.40	5.11	5.06	5.05	5.12	5.7001
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.897	.923	1.838	2.080	1.821	1.734	1.341	1.304	1.09341
Chinese	Mean	4.02	5.16	5.30	5.65	5.21	4.57	5.24	5.02	4.9000
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.530	1.003	1.116	1.136	1.186	1.507	1.145	1.344	.83673
Total	Mean	5.35	5.35	5.44	5.53	5.16	4.77	5.31	5.07	5.3084
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.788	1.136	1.555	1.386	1.535	1.958	1.592	1.534	.97910

Social Influence between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		Often share information regarding green products with my friends/parents.	I pay attention to environmental messages in advertisements.	Watch TV programs that are related to environmental topics/issues.	Made social changes are necessary to the protection of the natural environment.	Anti-pollution laws should be enforced more strongly.	I read newspaper articles that have environmental topics/issues.	My friends often discuss environmental related topics/issues with me.	My parents/friends encourage me to buy green products.	SIMEAN
American	Mean	5.59	5.00	6.12	5.97	6.19	5.72	5.76	5.29	5.0558
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.273	1.180	1.164	1.290	.841	1.945	2.015	1.940	1.0473
Chinese	Mean	5.26	5.72	5.74	5.88	5.63	5.87	5.84	5.07	5.3800
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.737	1.171	1.081	1.237	1.521	1.188	1.080	1.128	.63736
Total	Mean	5.42	5.83	5.90	5.90	5.91	4.79	5.48	5.76	5.3781
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.702	1.175	1.116	1.134	1.123	1.034	1.842	1.302	.73106

Green Purchase Intention between American and Chinese Consumers by using Mean and Standard Deviation

Report

Consumers		When I have to choose between two equal products, I intend to buy the one less harmful to other people and the environment	I intend to buy eco-friendly products in the future.	I intend to buy products that are made from recycled materials.	I intend to switch products for ecological reasons.	When I need to buy green products, I will consider whether their advertisements are also green.	When I intend to buy green products I will consider whether their producing process is also green.	When I intend to buy green products will consider whether their package is also green.	When I intend to buy green products I will consider their price.	GPIMEAN
American	Mean	5.60	5.04	5.53	6.06	5.44	5.58	6.09	5.51	5.0075
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	.763	1.407	2.066	1.805	1.914	.816	.726	1.036	.58867
Chinese	Mean	5.71	5.21	4.37	4.28	4.32	5.72	5.67	5.98	5.1567
	N	200	200	200	200	200	200	200	200	200
	Std. Deviation	1.192	1.163	1.286	1.334	1.347	1.046	1.095	1.030	.68117
Total	Mean	5.16	5.42	4.95	5.17	4.88	5.15	6.18	5.75	5.5831
	N	400	400	400	400	400	400	400	400	400
	Std. Deviation	1.094	1.307	1.814	1.817	1.746	1.031	1.060	1.350	.82710

Bivariate Analysis

Environmental Knowledge and the Green Purchase Intention of Chinese Consumers

Correlations

		GPIMEAN	EKMEAN
GPIMEAN	Pearson Correlation	1	.415**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.415**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Attitudes and the Green Purchase Intention of Chinese Consumers

Correlations

		GPIMEAN	ATTMEAN
GPIMEAN	Pearson Correlation	1	.681**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.681**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Concern and the Green Purchase Intention of Chinese Consumers

Correlations

		GPIMEAN	ECMEAN
GPIMEAN	Pearson Correlation	1	.199**
	Sig. (2-tailed)		.000
	N	200	200
ECMEAN	Pearson Correlation	.199**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Knowledge and Attitudes of Chinese Consumers

Correlations

		ATTMEAN	EKMEAN
ATTMEAN	Pearson Correlation	1	.488**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.488**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Concern and the Attitudes of Chinese Consumers

Correlations

		ECMEAN	ATTMEAN
ECMEAN	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Social Influence and the Green Purchase Intention of Chinese Consumers

Correlations

		SIMEAN	GPIMEAN
SIMEAN	Pearson Correlation	1	.504**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.504**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Knowledge and the Green Purchase Intention of American Consumers

Correlations

		GPIMEAN	EKMEAN
GPIMEAN	Pearson Correlation	1	.447**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.447**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Attitudes and the Green Purchase Intention of American Consumers

Correlations

		GPIMEAN	EKMEAN
GPIMEAN	Pearson Correlation	1	.447**
	Sig. (2-tailed)		.000
	N	200	200
EKMEAN	Pearson Correlation	.447**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Attitudes and the Green Purchase Intention of American Consumers

Correlations

		ATTMEAN	GPIMEAN
ATTMEAN	Pearson Correlation	1	.450**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.450**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Concern and the Green Purchase Intention of American Consumers

Correlations

		ECMEAN	GPIMEAN
ECMEAN	Pearson Correlation	1	.336**
	Sig. (2-tailed)		.000
	N	200	200
GPIMEAN	Pearson Correlation	.336**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Knowledge and Attitudes of American Consumers

Correlations

		EKMEAN	ATTMEAN
EKMEAN	Pearson Correlation	1	.411**
	Sig. (2-tailed)		.000
	N	200	200
ATTMEAN	Pearson Correlation	.411**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Environmental Concern and the Attitudes of American Consumers

Correlations

		ATTMEAN	ECMEAN
ATTMEAN	Pearson Correlation	1	.423**
	Sig. (2-tailed)		.000
	N	200	200
ECMEAN	Pearson Correlation	.423**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Social Influence and the Green Purchase Intention of American Consumers

Correlations

		GPIMEAN	SIMEAN
GPIMEAN	Pearson Correlation	1	.300**
	Sig. (2-tailed)		.000
	N	200	200
SIMEAN	Pearson Correlation	.300**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Independent-Samples T Test

Environmental Knowledge

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
EKMEAN	Equal variances assumed	15.910	.000	10.474	398	.000	.83833	.08004	.68097	.99569
	Equal variances not assumed			10.474	384.270	.000	.83833	.08004	.68096	.99571

Attitudes

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ATTMEAN	Equal variances assumed	46.140	.000	8.935	398	.000	.79937	.08947	.62348	.97527
	Equal variances not assumed			8.935	320.045	.000	.79937	.08947	.62335	.97540

Environmental Concern

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ECMEAN	Equal variances assumed	15.312	.000	1.469	398	.143	.11917	.08110	-.04027	.27860
	Equal variances not assumed			1.469	372.443	.143	.11917	.08110	-.04030	.27864

Social Influence

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SIMEAN	Equal variances assumed	.003	.954	-7.686	398	.000	-.52500	.06831	-.65929	-.39071
	Equal variances not assumed			-7.686	397.990	.000	-.52500	.06831	-.65929	-.39071

Green Purchase Intention

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
GPIMEAN	Equal variances assumed	1.185	.277	11.946	398	.000	.84875	.07105	.70907	.98843
	Equal variances not assumed			11.946	395.414	.000	.84875	.07105	.70907	.98843

Demographic Analysis

Chinese Consumers

Age Category

Age Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<21	76	38.0	38.0	38.0
	21-30	86	43.0	43.0	81.0
	31-40	33	16.5	16.5	97.5
	41-50	2	1.0	1.0	98.5
	>50	3	1.5	1.5	100.0
	Total	200	100.0	100.0	

Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	72	36.0	36.0	36.0
	Female	128	64.0	64.0	100.0
	Total	200	100.0	100.0	

Educational Level

Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school graduate or less	59	29.5	29.5	29.5
	Bachelor's degree	107	53.5	53.5	83.0
	Master's degree	31	15.5	15.5	98.5
	Doctor's degree	3	1.5	1.5	100.0
	Total	200	100.0	100.0	

Occupation

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public sector employee	12	6.0	6.0	6.0
	Private sector employee	18	9.0	9.0	15.0
	Student	94	47.0	47.0	62.0
	Self-empolyed	56	28.0	28.0	90.0
	Government employee	17	8.5	8.5	98.5
	Other	3	1.5	1.5	100.0
	Total	200	100.0	100.0	

Monthly Income

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low level	111	55.5	55.5	55.5
	Middle level	38	19.0	19.0	74.5
	Medium-high level	34	17.0	17.0	91.5
	High level	11	5.5	5.5	97.0
	Very high level	6	3.0	3.0	100.0
	Total	200	100.0	100.0	

Marital Status

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	170	85.0	85.0	85.0
	Married	28	14.0	14.0	99.0
	Divorced/Widowed	2	1.0	1.0	100.0
	Total	200	100.0	100.0	

Family Status

Family Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No child	175	87.5	87.5	87.5
	Have (a) child/children	25	12.5	12.5	100.0
	Total	200	100.0	100.0	

American Consumers

Age Category

Age Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	≤21	25	12.5	12.5	12.5
	21-30	48	24.0	24.0	36.5
	31-40	51	25.5	25.5	62.0
	41-50	41	20.5	20.5	82.5
	≥50	35	17.5	17.5	100.0
	Total	200	100.0	100.0	

Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	114	57.0	57.0	57.0
	Female	86	43.0	43.0	100.0
	Total	200	100.0	100.0	

Educational Level

Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school graduate or less	75	37.5	37.5	37.5
	Bachelor's degree	36	18.0	18.0	55.5
	Master's degree	73	36.5	36.5	92.0
	Doctor's degree	16	8.0	8.0	100.0
	Total	200	100.0	100.0	

Occupation

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public sector employee	45	22.5	22.5	22.5
	Private sector employee	10	5.0	5.0	27.5
	Student	33	16.5	16.5	44.0
	Self-empolyed	56	28.0	28.0	72.0
	Government employee	34	17.0	17.0	89.0
	Other	22	11.0	11.0	100.0
	Total	200	100.0	100.0	

Monthly Income

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low level	32	16.0	16.0	16.0
	Middle level	43	21.5	21.5	37.5
	Medium-high level	48	24.0	24.0	61.5
	High level	30	15.0	15.0	76.5
	Very high level	47	23.5	23.5	100.0
	Total	200	100.0	100.0	

Marital Status

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	71	35.5	35.5	35.5
	Married	100	50.0	50.0	85.5
	Divorced/Widowed	29	14.5	14.5	100.0
	Total	200	100.0	100.0	

Family Status

Family Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No child	79	39.5	39.5	39.5
	Have (a) child/childreen	121	60.5	60.5	100.0
	Total	200	100.0	100.0	

All Consumers

Age Category

Age Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<21	101	25.3	25.3	25.3
	21-30	134	33.5	33.5	58.8
	31-40	84	21.0	21.0	79.8
	41-50	43	10.8	10.8	90.5
	>50	38	9.5	9.5	100.0
	Total	400	100.0	100.0	

Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	186	46.5	46.5	46.5
	Female	214	53.5	53.5	100.0
	Total	400	100.0	100.0	

Educational Level

Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school graduate or less	134	33.5	33.5	33.5
	Bachelor's degree	143	35.8	35.8	69.3
	Master's degree	104	26.0	26.0	95.3
	Doctor's degree	19	4.8	4.8	100.0
	Total	400	100.0	100.0	

Occupation

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public sector employee	57	14.3	14.3	14.3
	Private sector employee	28	7.0	7.0	21.3
	Student	127	31.8	31.8	53.0
	Self-empolyed	112	28.0	28.0	81.0
	Government employee	51	12.8	12.8	93.8
	Other	25	6.3	6.3	100.0
	Total	400	100.0	100.0	

Monthly Income

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low level	143	35.8	35.8	35.8
	Middle level	81	20.3	20.3	56.0
	Medium-high level	82	20.5	20.5	76.5
	High level	41	10.3	10.3	86.8
	Very high level	53	13.3	13.3	100.0
	Total	400	100.0	100.0	

Marital Status

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	241	60.3	60.3	60.3
	Married	128	32.0	32.0	92.3
	Divorced/Widowed	31	7.8	7.8	100.0
	Total	400	100.0	100.0	

Family Status

Family Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No child	254	63.5	63.5	63.5
	Have (a) child/children	146	36.5	36.5	100.0
	Total	400	100.0	100.0	