

**Environment Friendly Products: Factors that Influence  
the Green Purchase Intentions of Pakistani Consumers:  
Some Insights from a Developing Country**

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A thesis submitted in partial fulfillment of the requirements for the Degree of Master of  
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the Faculty of Management Sciences  
International Islamic University,  
Islamabad

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## FORWARDING SHEET

The thesis entitled "Environment Friendly Products: Factors that Influence the Green Purchase Intentions of Pakistani Consumers: Some Insights from a Developing Country" submitted by Afzaal Ali in partial fulfillment of M.S degree in Management Sciences with specialization in Marketing, has been completed under my guidance and supervision. I am satisfied with the quality of student's research work and allow him to submit this thesis for further process as per IIU rules & regulations.

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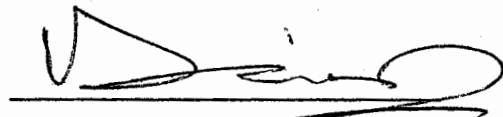


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**IN THE NAME OF  
ALLAH, THE MOST MERCIFUL AND BENEFICENT**

# **Dedication**

**“To my parents & my family, for their un-conditional love, prayers, and support  
to make”**

## **Chapter Summary**

Survey was conducted in four universities of Rawalpindi and Islamabad. The universities were International Islamic University Islamabad (IIUI), Muhammad Ali Jinnah University (MAJU), Quaid-i-Azam University (QAU) and Foundation of Applied Science and Technology (FAST). The sample consisted of 400 graduate and postgraduate students, one hundred from each university. There were three main objectives of this research thesis. First one was to find out the antecedents of the green purchase intentions of Pakistani customers. Secondly to expose the relationship of green purchase intention with green purchase behavior, and the last but not least objective was to establish the moderating effect of perceived product price and quality between green purchase intentions and green purchase behavior. All the established research hypothesized relationships were confirmed and that consumers green purchase intentions are influenced by businesses/ organization's green image (Manaktola & Jauhari, 2007; Ottman, 1993), perceived environmental knowledge (Manrai et al., 1997) and environmental concerns (Laskova, 2007). Consumers green purchase intentions are positively correlated with green purchase behavior, and last hypothesis confirmed the moderating effect of perceived product price and quality variable to enhance the consumers green purchase behavior of Pakistani consumers.

**Keywords:** Green purchase intentions, Green purchase behavior, Green marketing, Green products, Environmental friendly products, Islamabad,

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**Afzaal Ali**

## Table of contents

Content	Page Nos
<b>CHAPTER 1: INTRODUCTION, BACKGROUND AND AIMS:</b>	
1.1. Introduction and Background of the Study .....	2
1.2. Back ground of the problem .....	5
1.3. Objectives of Study.....	7
1.4. Significance of the study .....	8
<b>CHAPTER 2: LITERATURE REVIEW:</b>	
2.0. Literature Review .....	11
2.1. Green Purchase Intention .....	12
2.2. Relationship of green purchase intentions and green purchase behavior .....	13
2.3. Company's green image and green purchase intentions of customers .....	14
2.4. Environmental Concerns and Green Purchase Intentions of Customers .....	18
2.5. Environmental Knowledge and Green Purchase Intentions of Customers .....	21
2.6. Perceived Price and Product Quality .....	25
2.7. Moderating effect of Perceived Price and Quality .....	27
2.8. Theoretical model .....	30
2.9. Research question .....	30
2.10. Research Hypothesis .....	31
<b>CHAPTER 3: METHODOLOGY:</b>	
3.0. Methodology .....	33
3.1. Subject .....	33
3.2. Sample characteristics .....	34
3.3. Procedure .....	35
3.4. Measure/Instrument .....	35
3.4.1. Green purchase intentions: .....	35
3.4.2. Green purchase behaviour: .....	35
3.4.3. Organization's green image: .....	36

3.4.4. Environmental concerns: .....	36
3.4.5. Environmental knowledge: .....	36
3.4.6. Perceived product price & quality: .....	36
3.5. Pilot study .....	37
<b>CHAPTER 4: DATA ANALYSIS AND FINDINGS:</b>	
4.0. Analysis and Results .....	39
4.1. Correlations results .....	39
4.2. Regression analysis .....	40
4.3. Detail explanation of first three hypotheses .....	37
4.3.1. Hypothesis One .....	41
4.3.2. Hypothesis Two .....	42
4.3.3. Hypothesis Three .....	44
4.3.4. Hypothesis four .....	45
4.3.5. Hypothesis Five .....	47
<b>CHAPTER 5: DISCUSSION, RECOMMENDATION &amp; CONCLUSION:</b>	
5.0. Discussion Managerial Implications .....	52
5.1. Managerial Implications .....	53
5.2. Recommendations .....	55
5.3. Limitations and Future Research .....	56
References: .....	58
Appendix 1: QUESTIONNAIRE:	

## LIST OF TABLES

**Table No.**

**Page No.**

Table I. Sample characteristics: .....	34
Table II. Reliability analysis .....	37
Table III. Correlations Analysis: H1, H2, H3 .....	39
Table IV. Regression analysis: H1, H2, H3 .....	40
Table V. Correlations Analysis: H4 .....	45
Table VI. Regression analysis: H4.....	45
Table VII. Regression analysis: H5 .....	47

# **CHAPTER - 1**

## **INTRODUCTION**

## CHAPTER - 1

### 1.1. Introduction and background of the study:

Poverty alleviation and environmental degradation are critical global issues. All over the world, the situation of environmental degradation is escalating and warning the whole humanity (Talpur, 2010). Mass industrialization, rising consumption patterns, and increasing population pressures are important factors of it (Abdul-Wahab et al., 2003). During the past decade, a business phenomenon i.e. the adaptation of environmental concerns into corporate practice has been gaining popularity. It is predictable that the pressure of this evolution on corporate sector will not decrease in force since the new millennium dawns (Sarkis, 2001). This concept that focus on environmental stewardship have emerged during the past decade, challenged our capacity to be self-aware, and established a mutual global imperative in order to respond this critical issue that start from natural resource conservation and world-wide climate change (Olson, 2008).

Straughan and Roberts, (1999) argued that these environmental concerns have evolved through many different phases. It started in the 1960s with the greening concept, concentrating on pollution and energy conservation. Afterward, due to increased social and political pressure, organizations have moved beyond these concepts to recycling, alternative packaging, redesigning of product, and alternative products. Since 1990s, environmental concern has become one of the most important issues. Both in United States and the Europe, businesses have discovered that in the future customers purchase decision will based upon environmental considerations. This phenomenon is called green marketing (Lampe & Gazdat, 1995).

Because of increased people concern for the environment, green marketing emerged as a new strategy i.e. offering of green or environmentally friendly products to consumers and it is due to consumer's likeness for these products (Kim & Choi, 2005). Moreover, environmental degradation is a present day problem that requires immediate solutions, as it implies a reduction in the quality and the quantity of the natural resources. This drive firms to start an environmental transformation process in order to reduce the negative effects of economic activities on the environment. In this context, green marketing is an emerging business philosophy to address sustainability issues (Fraj-Andre's et al., 2009). The environmental impact is a growing global problem in the world, a consequence of the ever-increasing industrial activities, since the Industrial Revolution. In the last several decades corrective policies have been implemented to cure such environmental damage. To save the world where we live in, it is required to adopt a protective approach to environmental pollution. So as to eradicate the evils of environmental pollution, the idea of environmental management, for instance green management, green marketing, green innovation and green production etc. are now being pursued (Chen, 2008).

Green marketing, also known as sustainable marketing and environmental marketing involves designing, promoting, pricing and distributing products and services according to the customers' wants and needs, with minimal detrimental impact on the natural environment (Environmental Protection Agency). The idea of greengreen businesses helps organizations to increase their productivity while using limited resource in a manner which is harmonious (compatible) with human health as well as for non-human species (Isaak, 2002). Several businesses initiatives that benefited the environment are the results of; new legislation, customer safety concerns or community pressure, and reactive calls to action for specific environmental threats such as ozone layer depletion,



climate change, acid rain, and excessive pollution and smog (Olson, 2009). In the developed nations, demand for green products and services increases rapidly. After observing this phenomenon, now organizations have started to offer environmental friendly products (Jain & Kaur, 2004).

The concern with environmental degradation has resulted a new segment of consumers i.e. the green consumers. These consumers have been identified as one who avoids products that are possible danger for health, damage the environment during production, use materials derived from threatened species or environment and cause unnecessary waste. Moreover, due to the businesses decision to respond these consumers' environmental needs, the green marketing started to become an important branch of learning (Finisterra do Paço, & Raposo, 2008). However, these increased environmental concerns are not always reflected in customers purchasing behaviour (Yam-Tang & Chan, 1998); though, those people with a strong belief about the positive outcome of their pro-environmental behavior, engage in such behaviours to support movement of environmental concerns (Kim & Choi, 2005). Therefore, the question regarding the main determinants of the demand for green products is particularly important (Brécard, 2009).

As there are consumers who are ready to adopt ecologically packaged products, while there are certain socio psychological variables which discriminate between consumers who have low and high purchase intentions concerning these products (Schwepker-Jr, C. H. & Cornwell, T. B. 1991). D'Souza et al., (2007) reported multiple factors which influence consumer's intention to purchase green products, like perceived product price & quality, lack of awareness about greening concept in newly industrialized countries as those in develop countries (Bears et al., 2009), and a company's environmental reputation is likely to favorably affect the product's purchase likelihood (Schwepker &

Cornwell, 1991). Mostafa (2006) also confirmed that besides other factors, attitudes, consumers' environmental knowledge, environmental concern, altruism, and perceived effectiveness influence customers intention to purchase green products.

### **1.2. Background of the problem:**

All over the world, environmental destruction is an important problem for every individual and society. The struggle of economic development and rapid population growth, especially in developing societies, has increased environmental damage. To some extent, sustainable development is successful in contributing to the revival of the environment. Similar to most developing societies, the case of Pakistan shows similar trends and tendencies to this general situation. Rapidly increasing industrial pollution, contaminated water supplies by industrial and agricultural run-offs, deteriorating air quality, and water supplies contamination because of unrestricted industrial with vehicular emissions are big problems (Asif, 2005). Besides, only limited urban population has accessed to the facilities of sanitation and hygiene. Every year in Pakistan, an estimated amount of 17.5 million tons of solid waste is generated and just half is collected and dumped without using any modern sanitary methods. While rest is disposed of at open places, sewerage system and gutters (Malik, 2002).

Recently, a study conducted by the Japanese International Cooperation Agency (JICA) in three major cities namely, Lahore, Rawalpindi and Islamabad regarding on ambient air quality, discovered that the average suspended particulate matter in these cities was 3.8 times higher than the Japanese standards and 6.4 times higher than the WHO guidelines (Japan International Cooperation Agency, 1999). Moreover as we all know that the relationships between water quality and health hazards are entrenched. In Pakistan due to

water-borne diseases, an estimated 250,000 child deaths occur each year. These diseases are accountable for considerable financial losses, apart from the human losses (World Wild Federation, 2007).

In Pakistan, our environment and available natural resources are continuously polluted and still under stress because of rapid growth in population and unsustainable environmental practices. Major environmental problems facing Pakistan are due to mismanagement of scarce natural resources, climate change, natural hazards and waste management (Asian Development Bank, 2008). For the sake of reducing environmental dreadful conditions, protecting and promoting environment friendly businesses in Pakistan, there is need of it to put greater emphasis on environmental protection. Since the availability of natural resources and necessary ecological services are critically important for human well-being. Furthermore, despite the fact that environmental concerns in the developed countries are an essential part of many social, economic, and political aspect of their life, we know little about how people in developing countries especially in Pakistan view the environment.

In many developing nations such as Pakistan green marketing is relatively at its early stage of its development. Hence to find out the factors which can contribute to make green consumerism successful and to understand the impact of various factors on customer green purchase intentions, still there is a need of research to extend the findings from other new streams. These new streams may contain the moderating and mediating role of different variables which may affect the customers' attitude from different angles. Later than discovering these new streams the researchers could be able to give more inclusive understanding of complicated relationship between consumer purchase intention and consumer purchase behavior, and can propose new discoveries which can

enhance the generalizability of results not only in developed countries but also in less developed countries.

Though, this study is similar to the previous studies like the factors that influence the green purchase intention of customers but it will extend the existing literature on green marketing by investigating the moderating role of perceived product price & quality between consumer purchase intention and consumer purchase behaviour which was unobserved in the previous studies. In this context, the present study attempts to get an insight into green purchase intentions with particular focus on perceived environmental knowledge, environmental concerns, and organization's green image with moderating effect of perceived product price & quality between green purchase intention and green purchase behavior.

### **1.3. Objectives of study:**

The first objective of this study was to explore the factors that influence consumers green purchase intentions, which is measured by three independent variables; organization's green image, perceived environmental knowledge and environmental concerns. The second was to determine the relationship of consumers green purchase intention and consumers green purchase behavior. Finally, the third objective was to ascertain the moderating effect of perceived product price & quality between consumers green purchase intentions and consumers green purchase behavior.

Specifically, this study seeks to achieve the following objectives:

- 1- To investigate the influence of organization's green image on consumers green purchase intentions.

2- To investigate the influence of level of perceived environmental knowledge on consumers green purchase intentions.

3- To investigate the influence of environmental concerns on consumers green purchase intentions.

4- To investigate the relationship of consumers green purchase intentions and green purchase behavior.

5- To investigate the moderating effect of perceived product price & quality between the consumers green purchase intentions and consumers green purchase behaviour.

#### **1.4. Significance of the study:**

In Pakistan green purchasing is yet a very new concept and so far, literature on promotion of green purchasing to individual consumers is still lacking. Though, it is observed that large companies particularly multinational where the head office are from the UK, USA and other European countries are promoting 'green' practices. On the contrary, local businesses still have the attitude of 'wait and see'. Therefore, if we compare Pakistan, as well as in the wider context of the South Asia, with what have been happening in the West, consumers are just at the stage of green awakening. As in Pakistan, green issues are comparatively new for all, the consumers, industries and for the government, because they have never considered these issues before. But now due to international regulations and requirements, consumers and corporations are becoming conscious about the less environment friendly product due to their own welfare and interests; that is why this issue is very modern topic in Pakistan. Therefore, the timing is right for consumer research that examines factors that motivate the adoption of green products and behaviors in South Asian non-Western context. Nearly no relevant research has been conducted in Pakistan

in the field of green marketing. To remedy this void in the literature, this study attempts to look at the influence of various factors on the green purchase intention of Pakistani consumers

Secondly, to create awareness among the people, businessmen, as well as the policy makers about the issue of the environmental degradation and to realize them that it is also an important issue just like terrorism, poverty and illiteracy. This article aims to provide valuable information to policy makers, NGO's, businesses people and government about green purchase intentions of Pakistani people. I will also provide many useful suggestions after the completion of this article, which will help companies to direct future development in this field. In addition, this will lead the businesses to make, marketing plans to promote green products in Pakistan, appropriate distribution channel and advertising to be targeted to these groups of consumers of green products.

This article is designed into six major chapters. In the next chapter, further literature on factors and their influences on the green purchase intention, relationship of green purchase intention and green purchase behavior and moderating effect of perceived product price & quality are reviewed. The third chapter presents the theoretical model and research hypotheses on, then in the fourth chapter methodology, and data analysis, and results in the fifth section. Finally, the researcher discusses the results, recommendations and future research directions.

# **CHAPTER - 2**

## **REVIEW OF LITERATURE**

## CHAPTER - 2

### **2.0. Literature review:**

These days, environmental deprivation is considered a most important threat for the continued existence of humankind. In view of current environmental problems, the continual dreadful conditions in the quality and quantity of the ecological resources have persuaded the public to consider their responsibility. No doubt, governments, companies and consumers should be accountable for these environmental circumstances and must take initiative to obtain sustainable progress (Gonzalez and Gonzalez, 2005). At the moments, the environmental problems concern all active people, over and above businesses and institutions through out the world, much more than those thirty years before.

In recent years, because of concerns over environmental degradation and environmental sustainability, many governments and businesses have decided to search new ways to combat environmental problems (Coggburn & Rahm, 2005). In particular, under duress from the consumers, environmental groups, investors and politicians, businesses are starting to recognize its responsibility for protecting the environment by developing more environmentally friendly products and technologies (Wong et al., 1996). Researchers from all over the world show that more consumers' worries for the environment change gradually their behavior (Diamantopoulos et al., 2003).

Our entire environmental problems like pollution, the garbage glut, wastes of resources and energy are the outcomes of intentional mankind choices. Pickett et al, (1993) argued that these problems can be solved or considerably alleviated by providing more environmentally favorable alternatives to consumers. People buy green products more



often, not only because it is a better choice but also as it assists to sustain the environment for upcoming generation. Furthermore it is found that people are ready to switch and stop buying products from companies for ecological reasons (Fraj & Martinez, 2006). Furthermore, as today the driving forces following the recent wave of corporate transformation for improved environmental stewardship have been strongly aligned and in the future, potentially these forces become even stronger (Olson, 2009).

### **2.1. Green purchase intentions:**

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 products in their purchase considerations. In marketing literature purchase intention has been an important concept. To forecast the adaptation of new products as well as repeat purchases of existing ones, most companies used consumers purchase intention. Prior studies have exposed that consumer with intentions to buy product exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying (Brown, 2003). In this research thesis, the researchers took customer green purchase intention as a dependent variable, whereas customer green purchase behaviour is the outcome of customer green purchase intention.

According to Blackwell et al., (2001), purchase intention represent to what consumers think they will buy. Eagly and Chaiken (1993, p. 168) argued that intention represents a person's conscious plan to exert effort to carry out a behavior. Moreover, behavior towards a particular object is approximated by an intention to perform that behavior, cited by Malhotra and Mccort (2001). In this context, purchase intention means a person plan to purchase a particular good or service in the future (Business Dictionary.com).

## **2.2. Relationship of green purchase intentions and green purchase behavior:**

According to Chan (2001) & Beckford et al., (2010) research studies, green purchase intention is a significant predictor of green purchase behavior, which means that purchase intention is positively affect the probability of a customer decision that he will buy green products. Chan and Lau (2002) conducted a cross-cultural research study in China and America, wherein consumers in Shanghai and Los Angeles were surveyed, concluded that the asymmetric influence of green purchasing intention on green purchasing behavior warrants further attention. While Straughan, R. D. and Roberts, J. A. (1999) argued that a person with positive ecological behavior will prefer to buy these green products more often, as the positive indication of one's behavior for environment will increase the likelihood to choose these products with greater frequency (Cornelissen et al. 2008).

In the green section of consumer psychology, mostly researchers have been made efforts to explicate the gap between consumers' reported attitudes and their actual buying behavior. In this regard, they often used Ajzen's 'Theory of Planned Behaviour' (Kalafatis., Pollard., East., & Tsogas, 1999). This theory described that intentions towards an act are determined by attitudes, perceived control and subjective norms intention, in turn, may lead to actual behavior. Psychologists have examined values, beliefs, motivation and attitudes in order to comprehend this inconsistency and why some people engage in environmentally friendly behavior, while others do not (Allen & Ferrand, 1999; Dunlap, & Mertig, 1995; Nordlund & Garvill, 2002).

Also according to Ajzen (2005), a person forms an intention to engage in certain behaviour and at the appropriate time and opportunity this intention remains a behavioral disposition. There are many factors which interfere in this process, with an impact on

whether or not the ecologically conscious attitude will result in actual behavior, which is the purchasing of green products. Researchers identified many factors as influencing this process include environmental attitude, perceived environmental knowledge (Mostafa, 2006), perceived product price & quality (D'Souza et al., 2007), company's environmental reputation (Schwepker & Cornwell, 1991), environmental concerns (Phau & Ong (2007) and credibility of environmental advertising (Thøgersen, 2000). Among these factors, researcher took perceived product price & quality as a moderating variable in between the relationship of green purchase intention and green purchase behaviour.

### **2.3. Company's green image and green purchase intentions of customers:**

From the previous 30 years environmental issues have become very important for consumers, businesses as well as governments. In this regard, some environmentally responsible businesses have started to show an important commitment to the natural environment, and to society developing environmentally friendly strategies (Fraj-Andrés et al. 2009). Specifically, in recent times, environmental protection has gained a growing importance. As a result, large plus small firms have become aware of their responsibilities, and to face enterprise challenges these firms has been developing environmental strategies. As, It is utmost important that businesses must consider the pressure factors such as consumers, competitiveness and regulations so that the managers identify the advantages attached to the adaptation of environmental management and find the necessary techniques and instruments to take certain environmental initiatives such as plant location in areas with a lower impact, adoption of new less polluting technologies, launching of less polluting products and environmental communication (Buil-Carrasco, Fraj-Andrés & Matute-Vallejò, 2008). Furthermore, Banerjee (2001) concluded that there

is a need to enhance businesses contribution in environmental related activities. Because the number of businesses organization that involved in environmental activities increase, overall we can expect more developments to get better the state of the environment: less emission, less waste, more recycling, more efficient material and energy usage.

Besides, business sustainability is the concept that has received substantial attention from both academicians and practitioners, and environmental concerns have brought about changes in consumer demands and behaviors (Mendles & Polonsky, 1995). A lot of customers show amplified environmental awareness and inclination for environmentally friendly businesses and their products, unveiling their keenness to purchase and pay more for green products/services (Manaktola & Jauhari, 2007; Vandermerwe & Oliff, 1990). Recently, Athens Laboratory of Research in Marketing in collaboration with the Center of Sustainability done a research about the green marketing revealed above ninety two percent of customers has a favorable attitude concerning the businesses that are susceptible on ecological issues (Papadopoulos et al., 2009).

To accomplish up-and-coming green needs, the leaders of various businesses have made every effort to change their corporate cultures/structures to be more environmentally responsible, and in order to be more environmental friendly to modify their existing products/services (Dief & Font, 2010; D'Souzaand & Taghian, 2005). Another research conducted by Ottman (1993) emphasized that consumers' preferences have been changing drastically from traditional products to green products and traditional organizations to environmentally friendly organizations. Therefore, social environmental conscientiousness emerges as an essential organization function for the success of any business.

The study of D'Souza et al. (2006) exposed that environmental protection emerges to be more important than to profit maximization for the organization. Customers do not think that only government is responsible for the protection of the environment, organizations consider its own responsibility to protect it. Instead of government intervention to implement and control, organization must consider the policy of self-regulation strongly. Olson, (2009) further revealed that heightened consumers environmental knowledge and changing preference is also a motivating force that is requiring the change for companies to become better environmental stewards. Customers are looking for not only new environmental friendly products and services but also for ecologically aware businesses that address volatile energy prices and global warming, from which to make their purchases. Therefore, those organizations that plan to exercise green marketing strategies will surely get favor from ecological consumerism (Paco & Raposo, 2009).

To further strengthen the argument about influence of company's green image on green purchase intentions of customers, a study made by Paulraj (2009), concluded that in society, environmental deterioration has changed the role and perception of the businesses significantly. Now consumers are more aware of environmental issues and are demanding serious and appropriate action from businesses, so as to protect the environment. Karna et al., (2003) reported in their study that respondents see environmental friendliness and social responsibility of a company, as a necessity in society. Furthermore, 90 percent of them believed that green products are a necessity in the future. Similarly, 80 percent of the respondent thought that companies should redirect their customers towards green consumption.

Customers are more likely to choose brands produced by organizations with green reputation and this action help customers to feel positive about their choice (Pickett-Baker & Ozaki, 2008). Polonsky et al., (1998) reported many reasons due to firms are undertaking environmental improvements in their products including a desire to cater to the needs of socially responsible consumers who want to purchase less environmentally harmful products or a desire to be more socially responsible. Furthermore, Straughan and Roberts (1999) argued that it is due to customers demand for green products that force organizations to implement green practices and develop green products. In addition green marketing does not only mean to save this world, but to save the business. The key to success is green offerings. Customers will favor those companies which successfully take start with green products. Once consumers like green products then they remain loyal with them (Bears et al, 2009).

Corporate environmentalism is a right way for businesses to get first-mover advantage over those that do not, and also it is an ongoing rather than a onetime process through businesses' environmental and financial performance can be improved (Polonsky, 2001). As, consciously or unconsciously a company makes number of decisions during the process of developing a new product that affect the environment. Hence every company is responsible for its product technical as well as environmental performance (Mildenberge & Khare, 2000). Therefore, those organizations that developed environmental policies, ultimately their capabilities in organizing these environmental concerns will increase, which leads to better business performance (Fergusson & Langford, 2006).

Besides, environmental management may be a short term and long term competitive edge both for the countries and firms that produce less environmentally harmful products

(Polonsky., Australia., & Kangun, 1997). Chen (2008) argued that increase investments in green core competences of any organization leads to better green process innovation performance, green product innovation performance and ultimately green images. Chen et al., (2006) further explained that green product innovation allow businesses not only to enhance the efficiency of the resources, but also improve their corporate image with higher profits. Likewise, pioneer companies in the green product innovation can have the benefit of first mover advantages which relax companies from the pressures of consumer environmentalism, tight national and international conventions, and regulations.

#### **2.4. Environmental concerns and green purchase intentions of customers:**

The worldwide main causes of environmental deterioration are the current rapid growth in the economy and the patterns of consumers' consumption and behavior. Because of continuous environment deterioration, it has become a determined public concern in the developed countries and at this moment, this issue has also awakens developing countries to the green movement (Chen & Chai, 2010). Mostly western consumers and many from the developing countries belong to middle classes have expressed their concern about environmental issues. Additionally, to reduce personal impact on the environment, many of these consumers have done personal efforts. Though, now consumers think that national and international government actions are required because of wider scope of these issues (Johri & Sahasakmontri., 1998). A study made by Chitra (2007), concluded that people believed that protection of rare natural resources to meet the needs of upcoming generation is the responsibility of the businesses. Besides, government should develop a plan with policy measures to spread awareness among people regarding green products.

Another study conducted by Fraj-Andrés, Martínez-Salinas, & Matute-Vallejo (2009), emphasized that many customers are more worried about environmental problems. And those organizations that do not take actions to confront the environmental issue with offering of green products, possibly they lose credibility in the eyes of these customers. As social concerns and environmental regulations are most influential pressure factors on management commitment. Thus, managers tend to have a deeper involvement in environmental protection who receive more pressure and experience stricter regulation from customers about environmental expectations. Furthermore, Sia Su (2008) argued that Filipino college students consider it more important to protect the environment than economic development of their country. Moreover, they think it is possible to have a friendly environment with strong economy. But it is essential for Filipino public to show their concern about the real and significant environmental issues facing the country.

According to some researchers, marketer's primary objective should be to get consumers who are highly concerned about the environment to carry out their concerns (Ellen, Wiener, & Cobb-Walgren, 1991; Schuhwerk, Lefkoff-Hagius, 1995). Clearly, the basic aim of today's societies would be the increase of pro-environmental behavior, so that environmental impacts may be decrease. The only key to achieve this aim is the growth of environmental concern, and it is not worth much without behavioral changes. Moreover, it is found that a high level of environmental concern as an important prerequisite of long-lasting pro-environmental behavior (Takács-Sánta, 2007). One of the research study made by Mostafa (2007), contradicts previous research conducted in the West which showed that environmental concern is a post-material value and a set of attitudes that develop among people when their basic needs of food and safety have been met.



Furthermore, cross-culturally study results show that it is unfounded that traditional wisdom that environmental concern is a luxury afforded by only the wealthy. Another research study conducted by Walley, Custance and Parsons (2000) revealed that in recent years consumer concern for the environment has been on the increase. These concerns have created numerous opportunities, in addition to threats, for all businesses. Another research conducted by Beckford, Jacobs, Williams, and Nahdee (2010) in Canada emphasized that Canadian consumers have high level of environmental consciousness and respect for the environment. Besides there is recognition that the country faces many environmental challenges, and that economic pressures have many ecological problems. Phau and Ong (2007) argued that now people are becoming ever more conscious about environment. Consequently green consumptions are more popular and above all at this time organizations has also acknowledged it. Due to these continuously increasing concerns for eco-friendliness behavior, the demand for green products is steadily rising.

Laskova (2007) reported that in order to persuade green purchase intentions, consumers must have positive green attitude. People with high environmental concerns shows more positive attitude towards environment than people who think themselves powerless to help the environment 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 has a direct and positive influence on the customer purchasing intention of green products. This suggested that customer with strong environmental concern may be interested in consumption of products that reflect that concern. While, in one of research study, Mostafa (2009) highlighted the importance of environmental concern along with other variables for the prediction of consumer green

purchase behavior. He further added that on the basis of environmental concerns one can differentiate between green consumers and non-consumers.

Beside the environment of intense competition, an increasing number of consumers concerned about environmental issues and changing consumer preferences, it is very important for businesses to develop and launch green products and packaging so as to meet consumer needs and expectations (Soutar., Ramaseshan, & Molster, 1994). Since, according to Stone, Barnes, and Montgomery (1995) revealed that environmentally concerned consumers are willing to make sacrifices in their purchases and also willing to educate others consumers. At first step, marketers may want to identify these consumers in an attempt to effectively target certain markets for their products.

## **2.5. Perceived environmental knowledge and green purchase intentions of customers:**

Fryxell and Lo, (2003, p. 45) 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 to environmental facets or impacts, an admiration of entire organism, and mutual conscientiousness for sustainable development The customer’s level of environmental knowledge about environmental issues, the available substitutes and solutions to these problems is another factor which has at times proved to affect the consumer’s behaviour.

According to Bearse et al., (2009), it is not always possible for consumers to recognize the social as well as environmental advantages of products, and often due to advertising and promotional campaign of green products in media they get confuse. Majority of the

consumers remain hesitant of what is ecological, while a number of still uncertain of the entire green concept. In one of research study Pickett-Baker and Ozaki (2008) found that respondents considered it good to buy brands that were less damaging to the environment. Though, they revealed that sometimes it was not easy to identify green products. Moreover, respondents indicated that they do not notice much relevant or engaging marketing about these products. Therefore, in order to get effective results from the marketing campaign, marketers must put emphasis on the benefits of the product to the consumer and product improvements, such as new improved formula and/or design.

Thus, better use of marketing and portraying good brand image is crucial to sell green products. Similarly a study made by Paco and Raposo (2009) in Portugal exposed that consumers understand the environmental challenges, support policies to improve environment, even though their concerns do not transform into action. The reason for non-reflection of environmental concerns in to purchasing behavior is lack of awareness about greening concept in newly industrialized countries as those in developed countries (Yam-Tang & Chan, 1998). Whereas contrary to this, Fraj, and Martinez (2006) argued that although people have enough knowledge and are very much concerned about environmental problems, but still less involved in terms of their shopping habits and daily customs. Though, now consciousness about this issue has started to rise among few of these countries.

However, still there is a need that business personnel and government together take initiatives to educate and persuade people for green purchase decision. Moreover, it is found that there is a positive relationship between environmental awareness and people attitude, decisions and finally participation. So, if people awareness is increased, ultimately their sustainable consumption behaviour will be improved (Haron et al. 2005:

Fraj, E, & Martinez, E., 2006; Yam-Tang & Chan, 1998). Also, Manrai et al. (1997) argued that environmental knowledge of a customer is positively associated with the intention to purchase the products, having green claim. Therefore, managers may find the way to translate environmental issues into higher sales of green products. However, still there is a need that business personnel and government together take initiatives to educate and persuade people for green purchase decision. Moreover, it is found that there is a positive relationship between environmental awareness and people attitude, decisions and finally participation. So, if people awareness is increased, ultimately their sustainable consumption behaviour will be improved (Haron et al. 2005; Fraj, E, & Martinez, E., 2006; Yam-Tang & Chan, 1998).

Beside, environmentally concerned person who believe that pollution is a problem and also have a favorable attitude toward greening environment are more inclined to purchase green products. Hence, as people become aware of environmental problems, their attitudes and purchase intentions may in turn change. Ultimately, by sharing information about environmental problems, we can convince even those who do not currently favor green purchasing (Schwepker-Jr & Cornwell, 1991). Rashid (2009) also reported that environmentally concerned person is more inclined to purchase ecologically packaged products. Therefore, instead of making claims and denials or even disclose relevant information about greening concepts, it is important for companies to actually explain the issues and information to consumers, so that consumers confusion towards many environmental issues may be reduced. For this purpose, companies can go one step further to try and actually educate consumers not just simply explaining the nature of their products, but actually educate consumers about relevant environmental issues (Prothero., Peattie & McDonagh, 1997).

Hence, through an educational program, marketers and government agencies can increase people awareness of environmental problems, and possible solutions to these problems i.e. publicize and use of available alternatives, sharing benefits of green products. Since increased awareness of any problem can change people attitudes, behaviors and finally their purchase decisions (Alwitt, 1996: Rashid, 2009: Schwepker-Jr, & Cornwell, 1991: Hussain et al. 2003). In this regard, the role of the teachers is very important for spreading awareness among students about environmental concerns because often teachers are the role models for their students. There is a need that teachers provide sufficient knowledge and share their experiences so that students can develop positive attitude, adopt suitable spending behavior and way of life (Said et al., 2003). According to Straughan and Roberts, (1999), an individual must be convinced that to fight against environmental deterioration, his or her pro-environmental actions will be effective. Moreover, the authors' advocates that the campaign of green marketing should be explicitly linked with beneficial outcomes, because just claiming to be "green" is no longer enough. On the other hand, marketers must explain, how customers selection of green products are serving in the efforts to protect the environment.

To further strengthen the perceived environmental knowledge information vitality, a study conducted by Jain and Kaur (2006), reported that there is significant positive relationship between environmental education and environmental consciousness in respect to five environmental consciousness measures. Furthermore, this significantly optimistic relationship of environmental educational level with environmental knowledge, frequency and incidence of conservation behaviour and finally environmental activism mean greater environmental consciousness among more environmentally educated people. Similarly another study conducted by Castillo et al., (2002) emphasized

that environmental education is seen as raising environmental awareness among people. Besides, it develops values and attitudes and provides knowledge and skills needed to protect the environment. Consequently, consumer's environmental knowledge persuades the emotional level towards the environment. That's why; green consumers with understanding towards the environmental problems that contribute to environmental degradation will be sensitive to environmental matters (Junaedi, 2007)

## **2.6. Perceived product price & quality:**

From the above debate it become visible that green products have a great prospective worth for the corporate concerns in terms of improved profits and positive business image on one hand and guarantee safety of environment alternatively. A study conducted by Polonsky (1994), concluded that consumer put too much responsibility on businesses and government agencies for safeguarding the environment and, they do not consider themselves as a part of this process, and are not very much devoted in this regard. Therefore, green marketing does not strongly influence all consumers, thus it is necessary to identify and target environmentally concerned market segments (Lampe & Gazdat, 1995). Like in Europe and the United states where the prices of green products have typically been higher to reflect the additional costs of reengineering the production process, the disposal process or the packaging. Because, a high price of green product is an indicator of environmental performance, because less polluting products are more costly to produce Mahenc (2008).

However, because of increase environmental concerns consumers are willing to pay little more for green products. Furthermore, a survey indicated that consumers are ready to pay from 7 to 20% additional for green products (Reitman, 1992). Besides, Bhate and

Lawle (1997) indicated that a larger number of people have considered the prices of the green products higher than others; however even though they are ready to buy these green products. Similarly, Huang (2006) reported about Chinese consumers and Costay et al. (2000) reported about Brazilian consumers in their research studies that consumers in both of these countries are willing to pay in favor of improving local environmental quality. Particularly in china about 70% to 80% of the respondents respond that they are ready to pay for environment and purchase of green products respectively.

According to Pickett-Baker and Ozaki, 2008; D'Souza et al. 2007; Khosla et al, 2005; Polonsky, 1994, perceived product performance is a significant barrier to the consumption of environmentally sustainable products, therefore despite expressing concern towards the environment, consumers are unwilling to compromise on perceived product performance than on somewhat higher prices. Hence, as for as the product quality is concerned, green consumes will not compromise on it, so businesses must enhance green product quality as well as focus on environmental benefits of a product, and share these aspects with customers in order to achieve the recognition in the market (D'Souza., Taghian & Lamb, 2006).

Schlegelmilch., Bohlen and Diamantopoulos (1996) recommended that those organizations aiming to enhance market penetration of the existing green products offerings must launch an advertising campaign directed at increasing concern about environmental quality in the consumer base. Second, organizations make it possible that their products perform competitively in other dimensions. If these two things are achieved, then environmental considerations will no longer take back seat in purchasing decision. Furthermore, perceived risk is lower in most popular brands than for those less well-known. So customers generally trust on these brand and are not ready to

compromise on quality. Therefore like non-green alternative, green product must function effectively (Pickett-Baker & Ozaki, 2008). As, in comparison to other alternative non-green products, consumers are more strongly opposed to lower quality of green products than higher prices so quality of green products appears to be more important to customers than price (Khosla, D'Souza & Taghian, 2005).

Usually perception of environmentally friendly products is negatively linked with consumers' intention to buy them if in comparison to traditional products they are of higher prices and low quality. As a result, it may be said that there is an expectation on the part of consumers that all offered green products should be environmentally safe and sound without a need to sacrifice quality (D'Souza, Taghian, Lamb, & Peretiakos 2006). Despite definite reservations, countless consumers are ready to pay money for green products if they are considered satisfactory. Due to public's concern with clean air and water, pollution, recycling, and other related issues numerous opportunities have emerged. Therefore, marketers ought to respond to these ecological issues by upgrading products and packaging that try to help prevent long-lasting environmental problems, and that is better for the environment (Soutar, Ramaseshan & Molster, 1994). Therefore, businesses may manufacture higher quality green products and charge high prices in order to meet the higher costs of production, or they may compete by offering comparable green quality products at the competitive prices in the market (D'Souza et al., 2007; Khosla, D'Souza & Taghian, 2005).

### **2.7. Moderating effect of perceived product price & quality:**

The increasing consumers demands about green or environmentally responsible products and the market pressure to remain competitive has encouraged many marketing managers



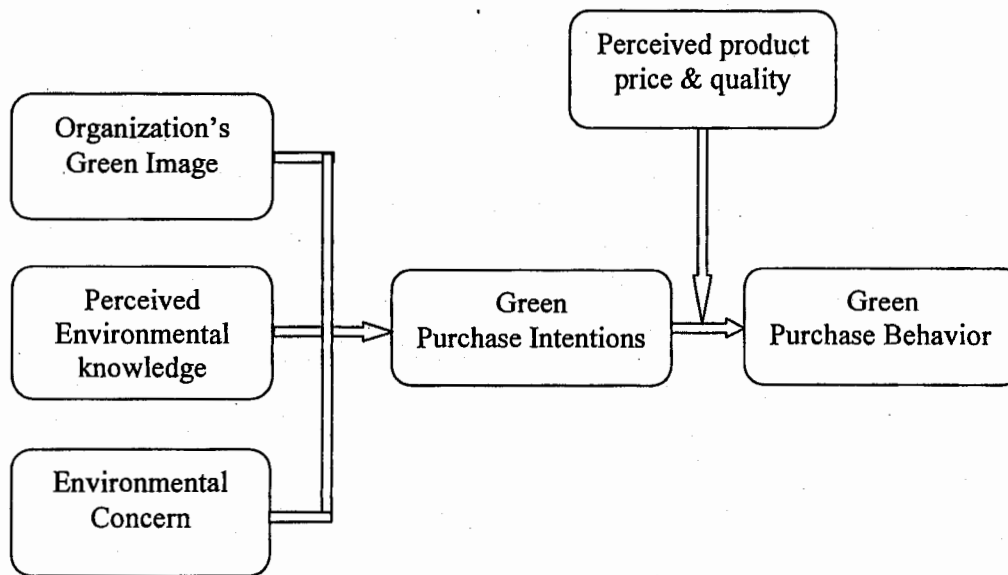
to collect information regarding environmentally responsible purchase behavior (Follows & Jobber, 2000). Since, according to Laroche et al. (2001), customers purchase decision towards green products can play a very important role for the wellbeing of the environment. As consumers are main players in the outlook of the recent societal movement promoting environment friendly behaviours. They have the power; not only to force the businesses all over the world to embrace the socially responsible paradigm, but also to reconsider their consumption behaviors in order to save the environment. Therefore, it is utmost important to identify the factors which induce customers to display green purchase behavior.

The study of Roozen and Pelsmacker (1998) revealed that consumers green perception does not directly indicate the green behavior of consumers, however it provides an indication of what consumers suppose is environment friendly. A study made by Alsmadi. (2008) in Jordan, concluded that consumers demonstrated reasonably high levels of environmental consciousness relating to various environmental issues, as they are concern about the environment, though, possibly be due to several factors, this pro-environmental attitude was not sufficient to turn good intentions into actual buying actions. Wong et al., (1996) reported that contrary to the enthusiastic opinion poll evidence concerning public attitudes towards environmentally friendly consumption, the degree of consumer adoption of green products is much less. Furthermore Chan (2001) reported that the translation of green purchase intention into purchase behavior does not enjoy the same level of effectiveness, like positive attitudes toward green purchases are translated rather effectively into green purchase intention. Therefore it is very important to find out the barriers that stop consumers from developing positive attitudes towards green consumption and becoming green consumer (Astous & Legendre, 2009)

According to Tang et al., (2004), a wealth of literature shows that there is a troublesome gap between what consumers says, they will do and how they actually behave. Most of the consumers say that they choose a product because of its environmentally friendly nature, but they do not make actual allocations of dollars in purchases. Therefore, environmental concerns are not the only reason for the customers to purchase environmentally friendly products, and also they do not agree to trade-off other product attributes for a better environment. This reveals that traditional product characteristics such as brand name, its price and quality are still the most important ones that consumers considered when making purchasing decision (Gan., Wee., Ozanne & Kao, 2008). Another study revealed that many consumers are unwilling to forgo essential product benefits during their purchase decision. So, green products must also perform competitively not only according to environmental aspects, but also on the basis of other important product characteristics for instance convenience or durability (Diamantopoulos et al., 2003). Moreover, now firms recognized that the future prospects for green goods remain bleak, until/ unless they can balance environmental compatibility with customers' primary desire for high quality products that perform well. Because, it is not comprehensible for customers to pay more for a product that does not offer basic benefits, whatever the environmental benefits Wong et al., (1996).

TH 7673

## 2.8. Theoretical model:



## 2.9. Research question:

There are four main questions in this study.

- Will 'organization green image' influence the consumers' green purchasing intention?
- Will 'perceived environmental knowledge' influence the consumers' green purchasing intention?
- Will 'environmental concern' influence the consumers' green purchasing intentions?
- Is the presence of "perceived product price & quality" variable, induce customers to finally display green purchase behaviour?

## **2.10. Research Hypothesis:**

1. Organization's green image is positively correlated with consumer green purchase intention.
2. Perceived environmental knowledge is positively correlated with consumer green purchase intention.
3. Environmental concern is positively correlated with consumer green purchase intention.
4. Green purchase intention is positively correlated with consumer green purchase behaviour.
5. Perceived product price & quality variable moderates the relationship between consumer green purchase intention and consumer green purchase behaviour.

# **CHAPTER - 3**

## **RESEARCH METHODOLOGY**

## CHAPTER – 3

### **3.0. Methodology:**

#### **3.1. Subject:**

Survey was conducted in four university of Rawalpindi and Islamabad. The universities were International Islamic University Islamabad (IIUI), Muhammad Ali Jinnah University (MAJU), Quaid-i-Azam University (QAU) and Foundation of Applied Science and Technology (FAST). The target population for this study was the undergraduate, graduate and postgraduate students. Business students were chosen as there is a common perception among people that these students are more knowledgeable and concerned about the environment than students belong to other disciplines. Other reason was that youngsters are a major part of the population in many developing countries together with Pakistan. Moreover, the educated youngsters are considered to be the future of any country. Similarly In many previous studies which were carried out in cause marketing perspective, the researchers have selected students as a target population. Although many researchers have raised questions about the generalisibility of the results which are based up on the data collected from students. This weakness can be ignored in social sciences research. Babbie (2001) stated that:

*“.....Social processes and patterns of causal relationships appear to be more generalizable and more stable than specific characteristics such as individual level of prejudice” (p.221).*

The sample consisted of 400 participants of four universities. Due to time and cost factor, researchers used convenience sampling for data collection. Similarly missing values were also deleted from the data, before applying the data analysis techniques.

Normality of the data was also checked to remove the outliers from the study. Based up on the value of Z-score, only 10 responses were found in the category of outliers. These responses were also deleted from the data to achieve the data normality and reduce their influence on results.

### 3.2. Sample characteristics:

*Table 1: Demographics of Final Sample*

		Frequency	Percent
<b>Gender</b>			
	Male	210	55.7
	Female	167	44.3
<b>Age</b>			
	Between 20 to 24	277	73.5
	Above 24	150	26.5
<b>Education</b>			
	Bachelor	182	48.3
	Masters	136	36.1
	Post Graduates	59	15.6
Total Sample Size (n) = 400			

Table I shows the demographic profile of the respondents. According to this table, males comprised about 56, while female constituted 44 per cent of the sample. The profile of the respondent discloses that out of 377 respondents, 277 respondents were between 20 to 24 years of age, whereas 150 were above 25 years of age. Then researcher divided educational level of the respondents into three categories i.e. Bachelor, Master and MS/PhD. One hundred and eighty students were those who were doing bachelors, similarly one hundred and thirty six were doing Masters, and finally MS/PhD category comprised of fifty nine students.

### **3.3. Procedure:**

Questionnaire was self administered. The researcher himself visited each of these four universities. Before the disbursement of these questionnaires to students; the researcher introduced himself and explained the purpose of his visit, and then brief the students about the concept of green marketing, green purchase intention and environmentally friendly products/green products. Questionnaires of two printed pages, consisted thirty four items/questions were circulated among university, and approximately 10 to 12 minutes time were required to complete it.

### **3.4. Measures/Instruments (see Annex A):**

All measures for the constructs were taken from previous studies in order to address the research questions stated in the study. Due to their established reliability and validity all these constructs were carried out from marketing perspective.

#### **3.4.1. Green purchase intentions:**

To measure the consumer green purchase intentions three items was adapted from the study of Lee (1997). Each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 4.011, S.D= 0.406).

#### **3.4.2. Green purchase behavior:**

Likewise to measure the variable of green purchase behavior four items was adapted from the study of (Lee, 2008). Again each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 3.621, S.D= 0.671).



#### **3.4.3. Organization's green image:**

Similarly for measuring the variable of organization's green image, researchers used items of (Manget et al., 2009). Each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 4.261, S.D= 0.363).

#### **3.4.4. Environmental concern:**

Likewise to measure the environmental concern twelve items was adapted from the study of (Abdul-Muhmin, 2007). Little modification was made to collect the data in green marketing context. Each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 4.252, S.D= 0.460).

#### **3.4.5. Perceived environmental knowledge:**

In order to know the effect of environmental knowledge on consumer green purchase intentions, five items was adapted from the study of (Mostafa, 2007). Each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 3.799, S.D= 0.655).

#### **3.4.6. Perceived product price & quality:**

Similarly to measure the consumers perception towards perceived product price & quality two items was adapted from the study of (D'Souza et al., 2007). Little modification in scales was made in order to make them simple and easy to understandable for the respondents of the study. Each item was measured on five-point Likert scale with response options ranging from strongly disagree to strongly agree. The mean and S.D of the scale was found (mean= 4.153, S.D= 0.578).

A questionnaire was developed. It has two parts. First part contained demographic information and the second part contained the variables and their items. In order to measure, the scale was adopted.

### 3.5. Pilot study:

Out of four hundred questionnaires, 377 were selected to investigate the hypothesized relationship between the variables. Prior to further data collection, researcher conducted a pilot study to test the suitability of the instruments used in this study. For this purpose, a total of 30 questionnaires were selected out of 377 and circulated among university students, collected, and analyzed, so that the reliability of the instrument can be checked. The results of the pilot study confirmed the suitability of the used instruments. Table 1 reveals the results of Cronbach's alphas along with the numbers of items of each variable.

<b>Construct</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Cronbach Alpha</b>
1 Green Purchase Intentions	4.011	0.406	<i>0.779</i>
2 Green Purchase Behaviour	3.621	0.671	<b>0.704</b>
3 Organization's Green Image	4.261	0.363	<b>0.757</b>
4 Perceived Product Price & Quality	4.153	0.578	<b>0.686</b>
5 Perceived environmental knowledge	3.799	0.655	<b>0.810</b>
6 Environmental Concerns	4.252	0.460	<b>0.743</b>

**Table II. Mean, Std. Dev and Cronbach Alphas**

# **CHAPTER - 4**

## **RESULTS and DISCUSSION**

## CHAPTER – 4

### 4.0. Analysis and results:

#### 4.1. Correlations results:

On the basis of literature review and research hypotheses H1, H2 and H3, researcher used correlation matrix and regression for the interpretation of data. Table III shows the correlation results for organization's green image, perceived environmental knowledge and environmental concerns with green purchase intention.

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**Table III. Green Purchase Intentions**

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H1	Organization's Green Image	Pearson	0.202**
		Sig. (2-tailed)	.000
		N	377
H2	Perceived environmental knowledge	Pearson	0.101*
		Sig. (2-tailed)	.049
		N	377
H3	Environmental Concerns	Pearson	0.429**
		Sig. (2-tailed)	.000
		N	377

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**Note:** \*\* Correlation is significant at the 0.01 level (2-tailed).  
\* Correlation is significant at the 0.05 level (2-tailed).

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The overall correlation results in table III indicate that out of three independent variables, two are significantly positively correlated with dependent variable. While third variable is moderately correlated with the dependent variable.

The results reveal that organization's green image is positively and significantly correlated with green purchase intention of consumers in Pakistan ( $r=0.202^{**}$ ,  $p < 0.05$ , H1 is supported). This significant positive relationship was also predicted in the literature review.

The correlation matrix established the positive relationship of perceived environmental knowledge with green purchase intention of consumers ( $r=0.101^*$ ,  $p<0.05$ , H2 supported), though, the overall correlation results in table III point out that the perceived environmental knowledge variable is not highly correlated with dependent variable.

For the third hypothesis, again significant and positive relationship found between environmental concern and green purchase intention ( $r=0.429^{**}$ ,  $p<0.05$ , H3 supported).

#### 4.2. Regression Analysis:

In order to measure the variation in dependent variable with respect to independent variable, regression analysis is used. The result of regression analysis is illustrated with respect to each hypothesis.

Hypothesis	Description	Path Coefficient ( $\beta$ )	t- value	P- value
H: 1	Organization's green image → Green purchase intentions	0.131	2.875	.004
H: 2	Perceived environmental knowledge → Green purchase intentions	0.220	4.728	.000
H: 3	Environmental concerns → Green purchase intentions	0.464	9.873	.000

**Table IV: Regression analysis**

According to the results of regression analysis, all of three hypotheses were accepted.

The results in table IV indicate that 13.1% variation in dependent variable (Green purchase intention) is caused by the independent variable i.e. Organization's green image.

P value (i.e.  $p < .05$ ,  $t = 2.875$ ) indicates that results are significant and hence H1 is accepted.

The results in table IV indicate that 22.0% variation in dependent variable (Green purchase intention) is caused by the independent variable i.e. perceived environmental knowledge. P value (i.e.  $p < .05$ ,  $t = 4.728$ ) indicates that results are significant and hence H2 is accepted.

The results in table IV indicate that 46.4% variation in dependent variable (Green purchase intention) is caused by the independent variable i.e. environmental concern. P value (i.e.  $p < .05$ ,  $t = 9.873$ ) indicates that results are significant and hence H3 is accepted.

### **4.3. Detail explanation of first three hypotheses**

#### **4.3.1. Hypothesis One:**

**H1: Organization's green image is positively correlated with green purchase intentions.**

In the correlations table, results for H1 confirm that environmental concern dimension is significantly and positively ( $r=0.202^{**}$ ,  $p<0.05$ ) correlated towards green purchasing intentions. This implies that people in Pakistan are ready to buy products from those companies that take care of environment. This is also consistent with the findings of Manaktola and Jauhari (2007) and Vandermerwe and Oliff (1990). They reported that a large number of customers show amplified environmental awareness and inclination for environmentally friendly businesses and their products, unveiling their keenness to purchase green products/services. Though, just like developed countries green products are not commonly available in Pakistan. However results of this study confirm that

customer in Pakistan will prefer to purchase products from socially responsible businesses.

Consumers concern regarding environmental deterioration is one of the most relevant problems in the Pakistani context. An existence of a market segment confirmed by consumers concerns who demands a conscientious dedication of businesses towards the environment. As consumers are looking for not only new products and services but also for environmentally conscious companies that address global environmental issues. Therefore, those organizations that plan to exercise green marketing strategies will surely get favor from ecological consumerism (Paco & Raposo, 2009). Furthermore, all over the world the unending growth of green consciousness present a huge opportunity for smart companies, and the business market for green products remains convincing especially in a competitive environment. However, manufacturers and seller of environmentally friendly products still face some challenges. Since, there are lot of ambiguities about the definitions and standards of green products. Due to this, many companies have been able to make flawed and sweeping claims about their environmental credentials. This made many consumers to become skeptical about companies and their green products

#### **4.3.2. Hypothesis Two:**

**H2: Perceived environmental knowledge is positively correlated with green purchase intentions.**

At this time, the correlations table results for H2 revealed that level of environmental knowledge dimension is positively ( $r=0.101^*$ ,  $p<0.05$ ) correlated towards green purchasing intentions of customers. This was supported by the findings of Lee (2008), Haron et al., (2005) and Yam-Tang & Chan, (1998). According to these findings,

environmental knowledge of a customer is positively associated with the intention to purchase the products, having green claim. Though, the overall correlation results in our study point out that the environmental knowledge variable is not highly correlated with dependent variable. There are some reasons behind this finding of weak relationship. First of all, though environmental knowledge is on the rise in Pakistan, thanks to mass media, international organizations and NGO initiatives, mass illiteracy and other factors like terrorism, poverty, economic crunch and political instability largely restrict spread of such knowledge and concern.

Actually, the words green marketing, environmentally friendly buying and green products are often misunderstood, to the extent that once I asked one of my MS colleague, Do you know; what are green products? He was very glad to declare with poise, those products belong to "*Greenstar Social Marketing Pakistan Limited*" which are used for family planning/ birth control in Pakistan. As *Greenstar Social Marketing Pakistan Limited* often advertised its products on television, radio and newspapers, and at the end of the advertisement end with the message "*A product from Green Star Marketing*" While he, like many others in developed cities plus rural Pakistan, is an ignorant person and do not perceives the concept of green marketing and essence of green products.

Here, advertising campaigns that persuade customers to act in a more ecologically aware manner would be appropriate. Societies could also encourage customers to make their voices heard, and to make choices in an environmentally friendly manner in their purchasing behaviour, which would support green movement. Secondly, there is a need that business personnel and government together take initiatives to educate and encourage people for green purchase decision. As, many researchers found that there is a



positive relationship between environmental awareness and people attitude, decisions and finally participation. So, if people awareness is increase, ultimately their sustainable consumption behaviour will be improved (Fraj, & Martinez, 2006).

#### **4.3.3. Hypothesis Three:**

**H3: Environmental concern is positively correlated with green purchase intentions.**

In the correlations results for the H3, environmental concern dimension is significantly and positively ( $r=0.429^{**}$ ,  $p<0.05$ ) correlated towards green purchasing intentions. This implies that consumers with high degree of concern for environmental problems may have higher intention to engage in green purchasing behaviour. Besides, these consumers may have high environmental problems awareness, which encourage them to behave pro-environmentally as they know the impact of not doing so. At this juncture, concerns for environment illustrate the intensity of emotional involvement in environmental issues. This finding was substantiated by the study of Lee (2008). She reported about teenager consumers in Hong Kong that environmental concern was the second top predictor to their green purchasing intention, and Kim & Choi (2005) argued that environmental concerns has a direct and positive influence on the customer purchasing intention of green products. This suggest that customer with strong environmental concern may be interested in consumption of products that reflect that concerns. These findings revealed that green products have great potential in Pakistan.

These results revealed that in recent years consumer concern for the environment has been on the increase. These concerns have created numerous opportunities, in addition to threats, for all businesses. Specifically these findings give marketers and policy makers, a clearer picture about the level of environmental concerns of Pakistani consumers

comparative to those of western consumers. Whereas people in developed countries from various businesses are using their efforts into capitalizing on green opportunities, they should also watch closely for similar opportunity up-and-coming in Pakistan.

#### 4.3.4. Hypothesis four:

**H4: Green purchase intentions are positively correlated with green purchase behaviour.**

H4	Green Purchase Intentions	Pearson	0.128*
		Sig. (2-tailed)	.013
		N	377

**Note:** \*\* Correlation is significant at the 0.01 level (2-tailed).  
\* Correlation is significant at the 0.05 level (2-tailed).

The correlation matrix (Table V) indicates a positive relationship between individual green purchase intentions and green purchase behavior ( $r=.128^*$ ,  $p < 0.05$ , H4 is supported).

Hypothesis	Description	Path Coefficient ( $\beta$ )	t- value	p- value
H: 4	Green purchase intentions $\rightarrow$ Green purchase behaviour	0.128	2.506	0.013

**Table VI: Regression analysis**

The results in table VI indicate that 12.8% variation in dependent variable (Green purchase behaviour) is caused by the independent variable i.e. Green purchase intentions. P value (i.e.  $p < 0.05$ ,  $t = 2.506$ ) indicates that results are positive and hence H4 is accepted.

The results of this study confirmed that a person with positive intentions to buy green product show high actual buying rates than those people who have low or no intention of buying green products. Prior studies have also exposed that consumer with intentions to buy product exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying (Brown, 2003). Chan and Lau (2002) conducted a cross-cultural research study in China and America, wherein consumers in Shanghai and Los Angeles were surveyed, concluded that the asymmetric influence of green purchasing intention on green purchasing behavior warrants further attention. In marketing literature purchase intention has been an important concept. To forecast the adaptation of new products as well as repeat purchases of existing ones, most companies used consumers purchase intention.

#### 4.3.5. Hypothesis Five:

**H5: Perceived product price & quality moderates the relationship between green purchase intentions and green purchase behavior**

**Table VII**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Step#1	(Constant)	2.302	.393		5.850	.000
	Green Purchase Intentions	.245	.098	0.128	2.506	.013
Step#2	(Constant)	1.218	.429		2.837	.005
	Green Purchase Intentions	.279	.094	.146	2.953	.003
	Perceived Product Price & Quality	.249	.046	.267	5.398	.000
Step#3	(Constant)	8.499	.658		5.126	.000
	Green Purchase Intentions	1.530	.409	.803	3.741	.000
	Perceived Product Price & Quality	1.566	.402	.683	3.892	.000
	Green Purchase Intentions *Perceived Product Price & Quality	1.452	.099	.123	4.538	.000

a. Predictors: (Constant)- Green purchase intentions \*Perceived product price & quality, green purchase intentions, Perceived product price & quality

b. Dependent variable: Green purchase behavior

To test the moderating effect of perceived product price & quality between green purchase intentions and green purchase behavior, hierarchical regression analysis was used. Sharma et al., (1981) suggested a three-step hierarchical regression analysis to test for a moderating effect. On the bases of these suggestions, firstly independent variable was entered. In the second step the moderator variable was entered, and at the last step

the interaction between the moderator and the independent variables were entered. A moderator effect will be present if the interaction term is statistically significant.

In order to calculate the moderating effect of perceived product price & quality in between the relationship of green purchase intention and green purchase behaviour, on the first step, green purchase intention was entered. Table VII(Step#1) results revealed that green purchase intention had positive impact on customer green purchase behaviour as indicated by the standardized Beta values, 0.128. Furthermore, the result shows that the relationship between customers purchase intentions of green products and customers green purchase behaviour is positive, though a person intention to purchase green products do not significantly associated with the customers green purchase behaviour ( $t = 2.506, p < 0.013$ ).

The second step shows that the main effect of perceived product price & quality was entered next. Green purchase intention variable is still in the step 2. Perceived product price & quality had the high impact on customer green purchase behaviour as indicated by the standardized beta values (Beta=0.267). The positive Beta indicates that perceived product price & quality is associated with higher level of his green purchase behavior ( $t = 5.398, p < 0.05$ ). In the third steps of Table VII showed that the interaction between green purchase intentions and perceived product price & quality was found to be significant ( $t = 4.538, p < 0.05$ ).

<b>Title:</b>	Moderation by perceived product price & quality
<b>Main effect:</b>	1.530
<b>Moderating effect:</b>	1.566
<b>Interaction term:</b>	1.452
<b>Constant:</b>	8.499

	<u>Step#1</u>	<u>Step#2</u>	<u>Step#3</u>
<b>Adjusted R-square:</b>	.014	.083	.128
<b>Change R-square:</b>	.014	.069	.059
<b>F change:</b>	6.278	17.942	19.454
<b>Sig. F change:</b>	.013	.000	.000

The F change and adjusted R-square are significant from step 1 to step 2 and from step 2 to step 3 with the introduction of the interaction terms indicating the moderating effect of perceived product price & quality. For the interaction effect, the results indicated that the interaction between consumer purchase intention and perceived product price & quality is significant (Beta =.123,  $p < .05$ ).

Thus, we could now conclusively state that the higher the offerings of green products with competitive price and quality as compared to traditional products, the stronger the relationship between a respondent purchase intention and his purchase behavior.

Moreover, Table VI (Step# 3) show that the moderating effect of perceived product price & quality on the relationship between green purchase intention and green purchase behavior. This shows that competitive price and quality of a green product have positive impact on customers green purchase behavior, if they have high and positive intention to purchase them. This reveal that if businesses offer environmentally friendly products to respondents with identical price and quality as compared to traditional products, along this respondents have positive intentions to purchase green products, green purchase behavior will be high. In other word, consumers will purchase green products more often, if businesses offer competitive green products in term of price and quality as compared to traditional products to those customers who are willing and give preference to products having eco-friendly features.

Furthermore, D'Souza. (2006) reported that generally perception of green products is negatively associated with customer's intention to purchase them if they are of higher prices and low quality in comparison to traditional products. Thus, businesses must ensure competitive pricing strategies along with strong quality controls to attract the prospective green customers. One more imperative facet that the marketers must consider is that the customers are often skeptical of the green claims; hence, organizations must guarantee that the offered environmentally friendly products perfectly meet the ecological values to define the customers' criticism.

# **CHAPTER - 5**

## **CONCLUSION**



## CHAPTER – 5

### 5.0. Discussions:

It has been emphatically recognized that poverty alleviation and environmental degradation are critical global issues (Talpur, 2010) and these deteriorating global environmental issues have attracted considerable attention around the globe (Mainieri et al., 1997), consequently finding schemes and methods to improve the moribund trend. There were three main objectives of this research thesis. First one was to find out the antecedents of the green purchase intentions of Pakistani customers. Secondly to expose the relationship of consumers green purchase intentions with consumers green purchase behavior, and the last but not least objective was to establish the moderating effect of perceived product price & quality between consumers green purchase intention and consumers green purchase behavior.

All the established research hypothesized relationships were confirmed and that consumers green purchase intentions are influenced by businesses/ organization's green image (Manaktola & Jauhari, 2007; Ottman, 1993), perceived environmental knowledge (Manrai et al., 1997) and environmental concerns (Laskova, 2007). Consumers green purchase intentions are positively correlated with green purchase behavior, and last hypothesis confirmed the moderating effect of perceived product price & quality variable to enhance the consumers green purchase behavior of Pakistani consumers. The findings of this research showed that people are very much concern about environmental problems in Pakistan, yet they are less involved in terms of their buying behavior and every day life. This may be because people do not think that only they are responsible for the

protection of the environment; businesses, government and economic institutions consider its own responsibility to protect it (D'Souza et al., 2006).

As in a developing country like Pakistan, where people faces lot of problems including terrorism, poverty, fundamentalism, illiteracy, unequal distribution of wealth and poor standards of living; thinking, discussing and buying green products by considering them better for the environment is like a marvel. Particularly in such environment people often put responsibility on other shoulders. Furthermore, the knowledge of green products among consumers of Pakistani is still new. The coming of cheap imported products allows a majority of consumers to switch brand to get cheap products. Only a small number of them buy green products, as their prices are far more than other products in the market.

#### **5.1. Managerial implications:**

At this stage businesses may offer green products to Pakistani consumers but with competitive prices and quality as compare to traditional products. Besides, in Pakistan green purchasing is yet a very new concept and so far, literature on promotion of green purchasing to individual consumers is still lacking. But now due to international regulations and requirements, consumers and corporations are becoming conscious about the less environment friendly product due to their own welfare and interests; that is why this issue is very modern topic in Pakistan. Therefore, at this stage along with NGOs, public and private organization, and government of Pakistan can do something to attract customers to purchase green products and to make sure that there must always be a range of choices of them to buy.

This research study has some useful implications for researchers, public and private sector institutions, marketers/ managers as well as NGOs. Marketers/ managers of the companies, private and public sector 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 Pakistan. Government and NGOs exposure about environmentally friendly products, practices, and alternatives is still small. While positive signs of customers environmental attitudes demand that government should consider some initiatives to attract people to tolerate with the environment. For example tax exemptions, subsidies and better investment opportunities to environmental friendly businesses to promote green products and practices among Pakistani consumers. This will be a good motivation for businesses and consumers.

Yet strict rules and regulations are required to enforce everyone to protect the environment. Furthermore, these research findings may also benefit businesses who want to offer environmentally friendly products to educated consumers. As the respondents of this study consisted of under graduate, graduate, and post graduate students. The results from this study show that these educated respondents have high positive attitude regarding green products and are ready to buy green products more often, but as for as the product price and quality is concern, green products must perform competitively just like the traditional products.

There are a number of research studies showing that while environmental problems, consequently environmental concerns have hit the public agenda behavioral changes have not-or not to the same extent (Inglehart, 1995; Oliver, 1999; Tarrant & Cordell, 1997). Like Dunlap et al., (2000) and Kaplan (2000) reported that though, a lot of people are

aware of and be concerned about environmental issue, this is not always reflects in behavior. So this study may play its crucial role in the sense to explicate the gap between consumers reported intentions and their actual buying behavior, as according to study findings that there are many customers who have positive and high intentions to purchase green products but due to higher prices and poorer quality as compare to non-green products, they do not buy them. Hence, along with environmental aspects manufacturers should consider the prices and quality of green products to attract these consumers

## **5.2. Recommendations:**

In most studies, consumers have expressed strong concerns regarding the environment, beside with eagerness to buy products and services that they consider will add to a better planet. With the passage of time, green consumerism is already a significant movement and it assures to become even more significant. Hence, what is better for the environment is better for the organization also. Therefore, environmental marketing/ green marketing can be done by businesses or enterprises to increase green purchasing intention of consumers. One of the practices to green marketing is environmental education. Businesses may emphasize the importance of environmental protection, ways to protect the real natural environment, advantages of environmental protection and hazards of unenvironmental practices in their businesses advertising, newsletters in order to sensitize the people regarding the masses of the looming threats of environments in Pakistan.

Secondly it's very obvious that social influence has a deep impact to young adults' decision making. Hence, referral marketing or word-of-mouth marketing can be an effective way in promoting environmentally friendly behaviours to this consumer group.

Online social network for example Twitter and Facebook have become popular and even a 'must have' account for young adults to get connected with friends. If possible, these online social networks have been used by marketers of green companies for advertising and promotional purposes. To create green purchasing intention and finally green purchasing behaviour, testimonials and user reviews on green products and ecological matters may be post in the social network to gain publicity.

Government roles, for instant, green related steps, policies and campaigns should be taken in consideration in the context of purchase intention. For example, government may announce import/ export duty exemption for importers and exporters, tax exemptions and subsidies to green businesses. The announcement might encourage businesses to produce products and services by keeping in view environmental considerations, besides these efforts would be able to encourage and stimulate the consumers intention to purchase green products and services.

### **5.3. Limitations and future research:**

In this research thesis, there are some limitations that deserve of future research. First of all, due to time and cost constraints the sampling frame for this research thesis was only limited to four universities undergraduates, graduates and post graduates students as subject. As a result, the findings of this thesis were deficient to be generalizing to all population of customers in Pakistan. For future point of view, it is recommended that broader demographic profile should be used in order to analyze other generation respondents like middle-agers and elderly, as this study was only studying on young adults. Secondly, the research did not identify the green products; as a result the respondents' response might vary for different categories of green products. Future

research should address this issue by considering focused green products. Furthermore, this study only examined three variables influencing green purchasing intentions of customers, but these are not the only determinants. Yet, there are many other purchase considerations for consumers to decide whether or not to buy environmentally friendly products. Future research is therefore can consider demographic factors in addition to other purchasing considerations as determinants of green purchasing intention.

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**Dear participant,**

I am student of International Islamic University, Islamabad. As a part of study, I am conducting a research on *“The factors which influence the willingness of customers to purchase the Environmental Friendly Products”*. You are requested to take 10 minutes out of your busy schedule to fill this questionnaire. This information will be used for academic purpose only and no information will be leaked out to any source. Your cooperation will be highly appreciated. If you need findings of this research please send a request to [afzaal\\_ciit@yahoo.com](mailto:afzaal_ciit@yahoo.com)

**Green products:**

*“Green products are those products which are considered environmental friendly and less harmful to human health than traditional products”.*

**Part A**

Please provide the following information

Gender --- (Male) -  - (Female) -  Education: Bachelors  Masters   
 --- MS/PhD  Others   
 Age ----- ( ) years

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
SD	D	N	A	SA

**Part B**

Your overall attitude towards the purchase of environmental friendly products is:						
1	I like the idea of purchasing environmental friendly products.	SD	D	N	A	SA
2	Purchasing environmental friendly products is a good idea.	SD	D	N	A	SA
3	I have a favorable attitude towards purchasing environmental friendly version of a product	SD	D	N	A	SA
To what extend you will prefer to purchase the environmental friendly product:						
4	Over the next month, I will consider buying products which are less polluting to environment.	SD	D	N	A	SA
5	Over the next one month, I will consider switching to other products for environmental reasons.	SD	D	N	A	SA
6	Over the next one month, I plan to switch to on environmental friendly products.	SD	D	N	A	SA
How you behave while purchasing the products in routine life:						
7	When I buy a product, I look its ingredients label (tag) in order to check whether it includes things that are harmful for the natural environment.	SD	D	N	A	SA
8	I will prefer environmentally friendly products over non environmentally friendly products when their product qualities are similar	SD	D	N	A	SA
9	I choose to buy products that are environmentally-friendly	SD	D	N	A	SA
10	I buy environmental friendly products even if they are more expensive than the non-environmental friendly products.	SD	D	N	A	SA

<b>What is your opinion about the Companies which want to offer environmental friendly products:</b>						
11	Companies should be clear about product risks and safety:	SD	D	N	A	SA
12	Companies should provide information on environmental impact:	SD	D	N	A	SA
13	Companies should have high ethical standards:	SD	D	N	A	SA
14	Companies should have a good environmental track record:	SD	D	N	A	SA
15	Companies should treat employees fairly:	SD	D	N	A	SA
16	Companies should offer environmental friendly products:	SD	D	N	A	SA
17	Companies should be involved in social projects:	SD	D	N	A	SA
18	Companies should donate to charity:	SD	D	N	A	SA
<b>Will you consider the price and quality while purchasing the environmental friendly products:</b>						
19	I will prefer environmentally friendly products over non environmentally friendly products when their product qualities are similar	SD	D	N	A	SA
20	I will prefer environmentally friendly products over non environmentally friendly products when their prices are similar	SD	D	N	A	SA
<b>To what extent you have awareness about environment and environmental friendly products:</b>						
21	I know that I buy products and packages that are environmentally safe.	SD	D	N	A	SA
22	I know more about recycling than the average (common) person.	SD	D	N	A	SA
23	I know how to select products and packages that reduce the amount of wastes.	SD	D	N	A	SA
24	I understand the environmental phrases and symbols (signs) on product package (packing).	SD	D	N	A	SA
25	I am very knowledgeable (educated) about environmental issues.	SD	D	N	A	SA
<b>To what extent environmental issues are important for you:</b>						
26	The environmental protection is one of the most important issues facing the world today	SD	D	N	A	SA
27	The importance of the environmental protection is often exaggerated	SD	D	N	A	SA
28	There is too much unnecessary attention given in the media to global environmental issues	SD	D	N	A	SA
29	Issues relating to the natural environment are very important to me	SD	D	N	A	SA
30	The increasing destruction (damage) of the natural environment is a serious problem	SD	D	N	A	SA
31	Environmental protection is a Western idea, and is not relevant for us in this country	SD	D	N	A	SA
32	There is really no need for anyone to worry about protecting the environment, because it can take care of itself naturally	SD	D	N	A	SA
33	There are other more serious problems facing our country than the environmental protection	SD	D	N	A	SA
34	We are not doing enough in this country to protect our natural environment	SD	D	N	A	SA
35	It is important for me that we try to protect our environment for future generations	SD	D	N	A	SA
3	We should devote some part of our national resources (income) for environmental protection	SD	D	N	A	SA
6						
3	There are few benefits of environmental protection; therefore, it is not logical to spend money for these.	SD	D	N	A	SA
7						

