

#### ARE PAKISTANI CONSUMERS READY TO GO GREEN: A STUDY OF BUYING INTENTIONS OF PAKISTANI CONSUMERS

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#### ABSTRACT

The realization of the need for sustainability as a result of soaring environmental issues has led many businesses, practitioners, and educationists to devise policies and practices which can save the earth from the harmful effects of human activities on the biophysical environment. One such set of activities identified by organizations is, "Going Green." This is, however, accompanied by many problems. One of those issues is the "adoption of green products by Customers." Thus, the research was conducted in this context to find the factors which play a significant role to consume green products in Southern Punjab, Pakistan. A comprehensive literature review was conducted to conceptualize a testable model showing the impact of attitude, aware and social context on green product consumption with "buying power" as a moderator. The target population for this study was taken as "earning hands of Southern Punjab". A sample size of 185 respondents retrieved using convenience sampling to answer the questions on an adapted structured questionnaire. Data were analyzed through regression and moderation analysis run in SPSS. The results of data analysis revealed that awareness, attitude, and social context have e significant positive impact on green product consumption. However, buying power was seen not to moderate the relationship of attitude, awareness, and Social Context on Consumption of Green products. The researcher suggests that marketers and government to run awareness campaigns and use promotion techniques for green product users to create social pressure on non-users and develop attitudes of people by developing environmental awareness and the need of environmental sustainability for human survival by going green.

**Keywords:** Attitude (ATT), Awareness (AWR), Social Context (SC), Buying Power (BP), Green Product Consumption (GPD) **JEL Codes:** D8, Q00,

#### **I. INTRODUCTION**

It is no secret that accelerated economic development has taken its toll on the natural resources of the planet. Excessive consumption of the latter has been brought about as a consequence of this rapid development. A disturbance in the equilibrium of the ecological environment is also a byproduct. The environmental issues of air pollution, global warming, ozone depletion and water pollution have therefore become quite severe. (Tanner & Kast, 2003) The competition wrought about by the WTO system has crossed the bonds of geographical borders and has resulted in booming economic development across the globe. Regretfully, however, this prosperous growth has also initiated the unfavorable onslaught of environmental deterioration on various fronts. This can be documented by the continuous stream of natural disasters e.g. mudslides, hurricanes, floods, droughts, etc. that have ravaged the globe in the recent years and the damage that they inflict upon the globe. It has been pointed out by Kate (Kate's, 2000) that the mainstream causes for these natural disasters are overpopulation and excessive consumption and are to blame for the present ecological and environmental disasters. The fact that these problems are much frequent in regions like China, Korea and Taiwan is a testament to Kate's statement as these areas show a dense and high rate of population. This dense population is to blame in each and every developed and developing country of the world for the immense pressure being exerted on the environment. The enhanced pressure on the environment has caused many to consider the relationship of mankind with the environment in which it resides. This is because the extraction and subsequent utilization of natural resources by man is considered to be an insignificant and disposable factor by us, Mankind. (Barr & Gilg, 2006) That is probably what brought about the gradual emergence of notions pertaining to environmental protection in today's time.

One of the best ways to boost and enhance environmental sustainability is to promote Green Consumption to the maximum extent probable. Through the process of making consumers go green and more aware in regard to the deteriorating state of the environment, a more positive and responsible attitude on their part for the protection of

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the environment can be attained. This consideration will go a long way towards integrating green awareness in their purchase decisions, meaning that they will go for products that are environmentally amicable and impart a minimized impact on it (Barr & Gilg, 2006). When it comes to Green products, many are unaware of what they are or what they relate to. These products can be defined as being those that are constituted from recyclable materials and produced through the usage of water energy-efficient means that reduce wastage, packaging and time for biodegradation (Nimse, Vijayan, & Kumar, 2007). (Seyfang, 2007), has also supported that notion that usage of green products tends to lead to measurement, prevention, limitation, reduction and repair of environmental damages done to water, soil, air and so forth. The research in question is conducted in order to gauge the level of willingness that the consumer evinces with regard to purchasing of "Green Products" within the Pakistani market. Comprehensive work and extensive literature on green product consumption is found, it was limited throughout the years to the developed countries. Seemingly, Pakistan is now moving towards development in the consumer markets and is more prone to seek the new customer trends, most of which are trickling down from the developed countries. One such trend is the consumption of green products. The relationship of green products and consumer is least explored in the developing countries like Pakistan. Therefore, the framework of the study hypothesizes that attitude, social context and awareness are independent variables which have an impact on "Green Product Consumption." Moderation for the whole process is imparted through the "Buying Power" that a consumer possesses. The study tries to find out the following questions: What is the impact of attitude, social context and awareness on the consumption of green products? What is the impact of buying power on the relationship of social context and consumption of green products? This study may be helpful for both practitioners and researchers. The practitioners may use the results of the study to gain better insight on the buying intentions of the customers of green products. The knowledge gained can be used by marketers to develop better marketing strategies and effective marketing mix. This may also help in making decisions for the organizations regarding production, operations and delivery of green products to the consumer markets. Researchers may use this in other countries embracing green product consumption. The theoretical model explored in this study can be re-examined in other domains by including more independent and moderating variables.

## **II. LITERATURE REVIEW**

Around the world, the term "green" has been used quite frequently by many industrialist and environmentalist to gain the attention of the public. For the industrialist, the term meaning to carry attributes that redefine a product's nature and the attraction that it carries for the environmentally cautious people. These attributes certainly carry environmental benefits, which are primary sources of impulse for the customers.

Following are some attributes of green products:

- Promotion of indoor environmental quality by reduction of emissions.
- Containing lesser toxic materials and byproducts Durante production process
- Lowered maintenance requirements and enhanced durability of the product
- Made through recycled materials
- Produced through the use of natural/renewable resources
- Produced through lesser means (energy) than its conventional counterparts
- Created in a way or through materials that can easily be recycled
- Can easily be obtained through local resources

### **II.I. GREEN CONSUMER AND FACTORS AFFECTING GREEN PRODUCT CONSUMPTION**

Green customers are considered to be those who purchase product thatch are environmentally friendly in nature. Whether operations, human resources or marketing is concerned, the production of environmentally friendly products necessitates a high level of innovation with many other consumer and environmental constraints (Cronin, et. al., 2011).

Green products incorporate the following activities (Amatruda, 2010):

- Incorporate recycle content
- Renewable resources
- Local resources and manufactures
- employ sustainable harvesting practices wood or bio-based
- Biodegradable
- Easily reused either whole or through dissembling
- Be able to readily recycle without significant deterioration of quality
- When consumers have an environmentally friendly nature they focus mainly on three aspects of green consumerism, the three "R's" such as (Reduce, Re-use and Recycle)

### **II.II. ATTITUDE AND GREEN PRODUCT CONSUMPTION**

Products which are known to be environmentally friendly are known as green products. Consumers these days are more sensible than before (Krause, 1993), their concern about the environment is increasing rapidly which is one of the causes for the purchase of environmentally friendly products Martin and (Simintiras, 1995). Knowing and having a positive attitude towards the environment can be translated into being environmentally friendly

(Soonthonsmai, 2007). Green consumers are aware of the environmental hazards caused by manufactures and organizations; therefore, they organize boycotts and petition to stop them from causing more damage (Fergus, 1991). Performance, affordability and convenience are the primary need of the customers, and this is exactly what green products are fulfilling. It is also crucial to note the extent to which the customer is aware about the functions of the product and its applicability in the environment (Ottman, 1993). Therefore, lack of awareness prevents the customers of buying green products. However, empirical findings are not very much vivid (Martin & Simintiras, 1995). For instance, Dispoto (1977) was of the view that there is a direct relation between eco-awareness and eco oriented attitude. Contrary to these, many studies show that environmental awareness does not significantly affect performance of ecologically oriented behavior (Schahn and Holzer, 1990; Arbuthnot & Lingg, 1975; Geller, 1981). In ecological literature, importance and inconvenience are the two most studied attitudes with reference to environmentally friendly behavior. The amount of one concern has for the ecological issues are the perceived importance of the environment (Amyx et al., 1994). On the other hand, if a person is facing difficulty in behaving in an environmentally friendly manner, then it can be called inconvenient. According to McCarty and Shrum (1994,) those who think that it is very inconvenient to recycle are less likely to show environmentally friendly behavior even though if they believe that it is very important to recycle. Hence, we can conclude that the inconvenience of recycling has a greater impact on an individual's action in the s than the importance of recycling. There are two types of consumers. Green consider are the one believes that the world and its environment is falling apart and that they should do something about it (Banerjee and McKeage, 1994). The other consumers are the ones who believe that this world has the capacity to resolve its own problems. Therefore, ones concern about the environment can influence him to pay more for products that are environmentally friendly. This leads us to believe that one may have environmental concerns but may also feel that it is not his responsibility but the responsibility of the government or organizations. This sort of attitude may results into lesser spending on green products.

### **II.III. GREEN PRODUCT CONSUMPTION**

According to Udgirkar (2014), Indian consumers are better aware and confident about green products being good for the environment, then consumers in the USA, Canada and China. Even India is not a very successful country, and it is a slow-developing country, but based on the awareness about green products, they are more concerned and understand the importance of using green product in comparison to other countries. But according to GFK a study conducted on the American population in 2012, 73% had purchased organic products, 93% of them tried various ways to save energy and 77% had made efforts to save water. Awareness can be about price, brand image and product.

### **II.IV. AWARENESS OF PRICE AND GREEN PRODUCT**

Price is influenced by many factors, which tend to fluctuate it by the amount of influence they have on it. These factors are related to the manufacturer's external environment which mostly consists of political, economic, social, technological, natural, legal, religious, customer/consumer, suppliers and competitive forces which have a great deal of influence on the price of a product. A customer can be said to have the greatest influence of them all when it comes to setting the price of the product. As far as, a product is concerned whether it is conventional in nature or environmentally friendly, both are influenced substantially by these factors. When we think of a regular products' development, it is certain that it has no environmental boundaries and constraints in the process of its creation. While its development process can be considered as difficult, there is no doubt that a considerable amount of extra fatigue is involved in the development of green products. Therefore, a lot of cost is incurred, and companies that are willing to bear that cost are certainly in the mood to take advantage by charging a premium price for their products. Green product is originally a nontoxic product, which is recycled reusable, the same is neither tested on animals nor polluting the environment and usually having lesser packing, containing natural ingredients and approved chemicals (Ottman 1998; Pavan 2010). Consumers' reflections show the price attribute when consumers make decision of purchasing green product. Consumers typically prefer non-expensive green products (Blend and van Ravenswaay 1999; D'Souza et al. 2006). On the other side from the emerging markets of the region, there are certain groups of consumers from Thailand, Malaysia and Korea whose 80 percent consumers are willing to purchase environmentally safe products (Dunlap and Scarce 1991; Lung 2010). As per D'Souza et al. (2006) all products offered should be environmentally safe irrespective of trading off quality or premium prices.

### **II.V. OF BRAND IMAGE AND CONSUMPTION OF GREEN PRODUCTS**

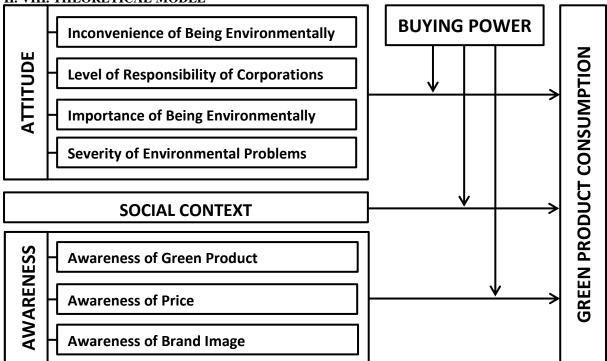
Brand image of the products with green labels or image plays a vital role on the perception of the consumers. Brand images known to the consumers are helpful for the companies to improve their quality and brands and introduce new products (Markwick and Fill, 1997). Consumers are typically not interested in those green products and brands that are not familiar to them. (Glegg et al. 2005). Purchasing decisions of the customers may be influenced by those companies who are more focused on green and eco-friendly image and are efficient in advertisement for their products.

## **II.VI. SOCIAL CONTEXT AND GREEN PRODUCT USAGE**

Social aspects i.e., Social, economic, personal lives and behavior of the consumers group can influence sustainable consumption (Spangenberg et al., 2010). Sustainable consumption in the developing countries can be a positive approach if it reduces poverty and hunger. These are directly correlated with the degradation of environment (O'Neill et al., 2009). Production of Green Products can provide non-material contributions to the quality of the community life, as the same is also related to the material possession (Lorek and Fuchs, 2013). As a result, the consumers of green products seek a collective identity is centered on social welfare goals (Wang et al., 2014). It can easily say that social pressure can compel consumers to purchase green products (Zhao et al., 2014; Ali and Audi, 2016; Ali et al., 2021).

# **II.VII. BUYING POWER AND GREEN PRODUCT CONSUMPTION**

Now a day in this dynamic AND fast moving world people are more aware and educated and have the decent sense to figure out what is right and wrong. They are aware of the environment and the hazards that are being created through this industrial revolution. The environment is a concern for everyone and this means that we must pay a heavy toll to make things right again, but keeping in mind that not everyone has the capacity (Buying Power) to do so. However, people with the buying power are concerned about the environment, but they also think of style and quality before anything else when it comes to green product consumption, so these factors have to be met with. But Crowther explains a way to sway the people with the buying power through the execution of promotions. Henion (1972) followed Berkowitz and Lutterman's (1968) on their study saying that consumers display a higher level of sensitive behavior towards the environment when they have higher education, which is caused by medium or high incomes of those customers. Banyte, Bourgeois and Banes, has opined that GP buyers are generally those who have higher income than those who are non-GP buyers. Income as a predictor of environmental awareness has a close connection with affect-ecological contraction, ecology and premium price of those products which are eco-friendly (Straughan & Robert, 1999). The connection between income growth and environmental quality is a basic issue in environmental economics. Our experience shows that per capita income of the low income countries indicates no improvement in the willingness of people to spend much more on eco-friendly products. Income status of a person is directly related to consciousness about environmental issues. Newell (1997) found income as a moderator in the context of environmental awareness. Another study found the negative relationship between environmental awareness and income of customers.



# II. VIII. THEORETICAL MODEL

*Figure 1: Theoretical Model (The model is developed by the researcher himself after thorough examination of the literature presented in the previous paragraphs.)* 

Based on the above literature following working hypothesis are proposed:

H<sub>1</sub>: Attitude, social context and awareness have significant impact on the consumption of green products.

H<sub>2</sub>: Buying power significantly moderates the impact of attitude on consumption of green products.

H<sub>3</sub>: Buying power significantly moderates the impact of social context on consumption of green products.

H<sub>4</sub>: Buying power significantly moderates the impact of awareness on consumption of green products.

# **IV. RESEARCH METHODOLOGY**

The purpose of the present study is to test the hypotheses developed after in depth review of literature. The study investigates the moderating effect of buying power on the relationship of attitude, social context and awareness on green product consumption. This study is causal in nature as the researcher intended to investigate the existence of impact of variables viz. Attitude, social context and awareness on the dependent variable namely green product consumption. The target population for this study is people with disposable income who reside in Southern Punjab (Pakistan). Since the population size is unknown, so sample size is calculated using the total number of questions developed for the variables multiplied by 5 samples (Hair et al, 2006). The total number of items developed to represent the independent, dependent and moderator variables are 37 so in this case sample size determined for this study becomes 37\*5=185. In order to collect information from the respondents' convenience sampling technique is used. Convenience sampling technique was best suited for this study since a sampling frame was not available. In order to extract information from the respondents, a survey was conducted. A structured questionnaire was developed for this survey. The questionnaire was divided into two parts. Part-1 consisted of demographic information and part-2 consisted of questions on independent variable (attitude, social context and awareness), dependent variable (green product consumption) and moderating variable (buying power). A total of 34 questions was adapted from previous studies to represent independent and dependent variables. 3 Questions for moderator variable (i.e. buying power) were self-developed. Responses of informants were taken on a 5 point likert scale for these questions. Pilot test was conducted to check the reliability of the instrument taking responses of 20 respondents. Cronbach's alpha for items of each variable was calculated. Values of Cronbach's alpha for each variable are given in the following table. Cronbach's alpha for all the variables was more than .70 which is the acceptable range of Cronbach's alpha reliability test given by (Nunnally, J. C., 1978). The impact of independent variables namely attitudes, social context and awareness on dependent variable namely green product consumption was checked by applying multiple regression techniques using SPSS(statistical package for social sciences).

#### IV. RESULTS AND DATA ANALYSIS IV.I. DESCRIPTIVE STATISTICS

A total of 185 respondents were assessed for data collection, out of them 121 (65.4%) were males and 64 (34.6%) were females. The marital status of 104 (56.22 %) out of 185 informants was single and 77 (41.62%) respondents were married. 4 (2.16%) respondents belonged to other status. The total number of intermediate, graduate and postgraduate respondents was 2 (1.06%), 102(55.14%) and 81(43.76%) respectively. The total number of employed, unemployed and students (with or without a job) respondents were 135 (73.0%), 19 (10.3.14%) and 31(16.8%) respectively. Total number of respondents with income ranging from 0-19999, 20000-39999, 40000-59999, 60000-79999 and 80000 and above were 29(15.7%), 12(6.5%), 48(25.9%), 58(31.4%) and 38(20.5%) respectively. Respondents having savings of less than 10000 were 99 (53.5%). Respondents with savings ranging from 10000-19999, 20000-29999 and 30000 or above were 59 (31.9%), 8 (4.3%) and 19 (10.3%) respectively. The total number of respondents who belonged to 18-25, 26-35, 36-45 and above 65 were 53 (28.6%), 115 (62.2%), 15 (8.1%) and 2 (1.1%) respectively.

# **IV.II. ATTITUDE AND GREEN PRODUCT CONSUMPTION:**

The conceptual model presented at the end of chapter 2 expressed four dimensions of attitude viz. Inconvenience of being environmentally friendly, level of responsibility of Corporations, Importance of being environmentally friendly and Severity of environmental problems. The following few tables present the impact of each of these dimensions of attitude on green product consumption, which is a dependent variable.

# IV.II.I NCONVENIENCE OF BEING ENVIRONMENTALLY FRIENDLY AND GREEN PRODUCT CONSUMPTION

Tables given below show the regression results between one of the dimensions of attitude, namely "inconvenience of being environmentally friendly" which is taken as the independent variable and "green product consumption" which is taken as dependent variable. **ANOVA**<sup>a</sup>

Model		Sum Squares	of Df	Mean Square	F	Sig.
	Regression	5.718	1	5.718	9.447	.002 <sup>b</sup>
1	Residual	110.770	183	.605		
	Total	116.488	184			
a. Dep	endent Variable: GP	C_Mean				
b. Pred	lictors: (Constant), A	TTD4_Mean				
Coeffic	tients <sup>a</sup>					

Model		Unstandardiz	ed Coefficients	Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		Ū.
1	(Constant)	3.055	.361		8.457	.000
1	ATTD4_Mean	283	.092	222	-3.074	.002
a Damas	don't Variables CPC	Magn				

a. Dependent Variable: GPC\_Mean

The tables given above show that value of beta coefficient as -.283 which is also significant with p-value <.05 indicating that 1% change in the attitude of consumers regarding inconvenience of being environmentally friendly will bring 28.3% change in consumption of green products in opposite direction. Regression equation for this relationship is consumption of green products = 3.055 - .283 (inconvenience of being environmentally friendly).

#### **IV.II.II.** Level of Responsibility of Corporations and Green Product Consumption

The tables given below show the regression results between other dimensions of attitude namely "Level of Responsibility of Corporations", which is taken as an independent variable and "green product consumption" which is taken as dependent variable.

Model		Sum of Squares	Df	Mean Square	F	Sig.	
	Regression	18.059	1	18.059	33.576	.000t	)
1	Residual	98.429	183	.538			
	Total	116.488	184				
a. Depe	ndent Variable: (	GPC_Mean					
b. Pred	ictors: (Constant)	, ATTD3_Mean					
Coeffic	ients <sup>a</sup>						
		I.I. ston doud!	d Castfiniant	Standardized			
Model		Unstandardize	ed Coefficients	Coefficients		Т	Sig.
		В	Std. Error	Beta			•
1	(Constant)	1.095	.159			6.906	.000
1	ATTD3 Mean	.322	.056	.394		5.794	.000

a. Dependent Variable: GPC\_Mean

The tables given above show that value of beta coefficient as .322 which is also significant with p-value <.05 i.e. .000, indicating that 1% change in the attitude of consumers regarding Level of Responsibility of Corporations will bring 32.2% change in consumption of green products. Regression equation for this relationship is consumption of green products = 1.095 + .322 (Level of Responsibility of Corporations).

# IV.II.III. IMPORTANCE OF BEING ENVIRONMENTALLY FRIENDLY AND GREEN PRODUCT CONSUMPTION

The tables given above below show the regression results between another dimensions of attitude namely "Importance of being Environmentally Friendly" which is taken as an independent variable and "green product consumption" which is taken as dependent variable.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.400	1	26.400	53.628	.000 <sup>t</sup>
1 Residual	90.088	183	.492		
Total	116.488	184			
a. Dependent Variabl	e: GPC_Mean				
-					
b. Predictors: (Const	ant), ATTD2_Mean				
b. Predictors: (Const <b>Coefficients</b> ª	ant), ATTD2_Mean				
		Coefficients	Standardized		
	ant), ATTD2_Mean Unstandardized	Coefficients	Standardized Coefficients	Т	Sig.
Coefficients <sup>a</sup>		Coefficients Std. Error		Т	Sig.
Coefficients <sup>a</sup>	Unstandardized		Coefficients	T 9.371	Sig. .000

a. Dependent Variable: GPC\_Mean

The tables given above show that value of beta coefficient as .493 which is also significant with p-value <.05 i.e. .000, indicating that 1% change in the attitude of consumers regarding Importance of being Environmentally Friendly will bring 49.3% change in consumption of green products. Regression equation for this relationship is consumption of green products= 1.147 + .493 (Importance of being Environmentally Friendly).

### **IV.II.IV SEVERITY OF ENVIRONMENTAL PROBLEMS AND GREEN PRODUCT CONSUMPTION**

The tables given above below show the regression results between another dimension of attitude namely "severity of environmental problems", which is taken as an independent variable and "green product consumption", which is taken as dependent variable.

Mode	1	Sum of Squares	df	Mean Square	F	Sig.
	Regression	34.608	1	34.608	77.349	.000 <sup>b</sup>
1	Residual	81.880	183	.447		
	Total	116.488	184			
a. Dep	oendent Variable: GP	C_Mean				
1 n <sup>-</sup>						
b. Pre	dictors: (Constant), A	AIDI_Mean				
	aictors: (Constant), A <b>icients</b> ª	ATIDI_Mean				
				Standardized		
Coeff	icients <sup>a</sup>	Unstandardized (	Coefficients	Standardized Coefficients	t	Sig.
	icients <sup>a</sup>		Coefficients Std. Error		t	Sig.
Coeff	icients <sup>a</sup>	Unstandardized (		Coefficients	t 4.155	Sig. .000

## a. Dependent Variable: GPC\_Mean

The tables given above show that value of beta coefficient as .643 which is also significant with p-value <.05 i.e. .000, indicating that 1% change in the attitude of consumers regarding severity of environmental problems will bring 63.4% change in consumption of green products. Regression equation for this relationship is consumption of green products = .651 + .634 (severity of environmental problems).

## IV.II.V SOCIAL CONTEXT AND GREEN PRODUCT CONSUMPTION:

Tables given below show the results of regression between the independent variable namely social context and the major dependent variable of the study i.e. Green Product Consumption.

A	NOVA <sup>a</sup>					
M	odel	Sum of Squares	df	Mean Square	F	Sig.
	Regression	71.699	1	71.699	292.955	.000 <sup>b</sup>
1	Residual	44.788	183	.245		
	Total	116.488	184			

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), SC\_Mean

### **Coefficients**<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	+	Sia
Widdei	В	Std. Error	Beta	ι	Sig.
(Constant)	.683	.083		8.235	.000
<sup>1</sup> SC_Mean	.743	.043	.785	17.116	.000

a. Dependent Variable: GPC\_Mean

The results of the regression between the independent variable social context and dependent variable green product consumption indicate a beta coefficient of .743 which is significant with p-value <.05 i.e. .000. The regression equation for this relationship becomes Green Product Consumption = .683 + .743 (Social context) revealing that 1% change in Social Context will bring 74.3% change in Green product consumption keeping all other things constant.

### **IV.III WARENESS AND GREEN PRODUCT CONSUMPTION**

Three dimensions of awareness were identified from comprehensive review of literature on green product consumption. These dimensions include awareness of green products, awareness of price and awareness of brand image. Impact of the dimensions of awareness on green product consumption is given below.

### **IV.III.I** Awareness of Green Products and Green Product Consumption

The tables given below show the regression results of a dimension of awareness which is taken as an independent variable namely "awareness about green products" and green products consumption which is taken as a dependent variable.

ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	50.172	1	50.172	138.452	.000 <sup>b</sup>
1 Residual	66.316	183	.362		
Total	116.488	184			

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), awrD1 Mean

### Coefficients

Madal	Unstandard	lized Coefficients	Standardized Coefficients	т	<b>C</b> :-
Model	В	Std. Error	Beta	1	Sig.
(Constant)	.224	.154		1.452	.148
<sup>1</sup> awrD1_Mean	.810	.069	.656	11.767	.000

a. Dependent Variable: GPC\_Mean

The results of the regression show a significant beta coefficient of .810 indicating that 1% change in awareness about green products will bring 81.0% change in green product consumption keeping all other things constant. Regression equation for this relationship can be written as green product consumption = .224 + .81 (awareness about green product).

### **IV.III.II AWARENESS OF PRICE AND GREEN PRODUCT CONSUMPTION**

The tables given below show the relationship between awareness of Price (one of the dimensions of awareness) which is taken as an independent variable and green product consumption which is taken as a dependent variable. **ANOVA**<sup>a</sup>

Model		Sum Squar	es of df	Mean Square	F	Sig.
	Regression	44.90	7 1	44.907	114.806	.000 <sup>b</sup>
1	Residual	71.58	1 183	.391		
	Total	116.4	88 184			
a. Dep	endent Variable:	GPC_Mean				
b. Pred	dictors: (Constan	nt), awrD2_Mean				
Coeffi	cients <sup>a</sup>					
Model		Unstandardiz	ed Coefficients	Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		C
1	(Constant)	.823	.116		7.125	.000

awrD2 Mean a. Dependent Variable: GPC Mean

.611

1

The tables given above show a beta coefficient of .611 which is significant with p-value =.000 indicating that 1% change in awareness of price will bring .611 % change in consumption of green products. The regression equation can be written as green product consumption = .823 + .611 (awareness of Price).

.621

10.715

.000

### **IV.III.III. BRAND IMAGE AND GREEN PRODUCT CONSUMPTION**

.057

The tables given below indicate regression results between a dimension of awareness (namely awareness of brand image) taken as an independent variable and green product consumption taken as a dependent variable.

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	55.597	1	55.597	167.092	.000 <sup>b</sup>
1 Residual	60.890	183	.333		
Total	116.488	184			
a. Dependent Varia	ble: GPC_Mean				
b. Predictors: (Cons	stant), awrD3_Mean				
Coefficients <sup>a</sup>					
	Unstandardized Coeff	licients	Standardized Coeffi	cients	

N	Iodel	Unstandard	lized Coefficients	Standardized Coefficients	+	Sig.
IV	lodel	В	Std. Error	Beta	ι	Sig.
1	(Constant)	.759	.102		7.441	.000
1	awrD3_Mean	.668	.052	.691	12.926	.000

a. Dependent Variable: GPC Mean

The tables given above show that 1% change in awareness about brand image will bring 66.8% change in consumption of green products i.e. beta coefficient of .668 which is significant with p-value = .000. Regression equation for this relationship becomes green product consumption = .759 + .668 (awareness of brand image).

#### **IV.III.IV SOCIAL CONTEXT, AWARENESS AND GREEN PRODUCT CONSUMPTION**

The following tables present the impact of three independent variables namely attitude, social context and awareness on green product consumption which is a dependent variable.

### **Model Summary**

	,J				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.810ª	.657	.651	.470	
D 1					

a. Predictors: (Constant), SC\_Mean, ATT\_Mean, AWR\_Mean

#### **ANOVA**<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	76.521	3	25.507	115.515	$.000^{b}$
1 Residual	39.967	181	.221		
Total	116.488	184			

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), SC\_Mean, ATT\_Mean, AWR\_Mean

#### **Coefficients**<sup>a</sup>

Model		Unstandar	dized Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		•
	(Constant)	026	.192		135	.893
1	AWR_Mean	.309	.087	.259	3.577	.000
1	ATT_Mean	.143	.055	.115	2.623	.009
	SC_Mean	.548	.069	.579	8.003	.000

a. Dependent Variable: GPC\_Mean

The results of the multiple regression analysis taking awareness, attitude and social context as independent variables and green product consumption taken as dependent variable are shown in the tables given above. Regression equation which can be written as:

Green Product Consumption = -.026 + .309 (Awareness) + .143 (Attitude) + .548 (Social Context)

The beta coefficients for awareness, attitude and social context are all significant with p-values of .000, .009 and .000 respectively. The value of R square equals .657 which indicates that 65.7% f variation in the dependent variable namely "green product consumption" is explained by the three independent variables namely attitude, awareness and social context.

# IV.IV ATTITUDE, SOCIAL CONTEXT, AWARENESS, BUYING POWER AND GREEN PRODUCT CONSUMPTION

Buying Power was conceptualized as a moderator in the relationships of Attitude and Green Product Consumption, Social Context and Green Product Consumption and Awareness and Green Product Consumption. Data collected on all these variables is used to present results of moderation on all these conceptualized relationships given at the end of chapter 2 in the form of a theoretical model and research hypotheses.

# IV.IV.I. IMPACT OF ATTITUDE ON CONSUMPTION OF GREEN PRODUCTS KEEPING BUYING POWER AS MODERATOR

Following few tables were generated as a result of the moderation analysis run in SPSS to check the impact of buying power (moderator) on the relationship of social context and green product consumption.

#### **Model Summary**

			Adjusted	Std. Error	Change Statis	tics				
Model	R	R Square	Adjusted Square	of the	R Square	E Change	df1	df2	Sig. Change	F
			Square	Estimate	Change	F Change	ull	u12	Change	
1	.619 <sup>a</sup>	.384	.377	.628	.384	56.620	2	182	.000	
2	.623 <sup>b</sup>	.389	.378	.627	.005	1.483	1	181	.225	

a. Predictors: (Constant), ATT\_Mean, BP\_Mean

b. Predictors: (Constant), ATT\_Mean, BP\_Mean, int.\_att\_bp

AN	OVA <sup>a</sup>					
Mo	odel	Sum of Squares	df	Mean Square	F	Sig.
	Regression	44.679	2	22.340	56.620	.000 <sup>b</sup>
1	Residual	71.809	182	.395		
	Total	116.488	184			
r	Regression	45.263	3	15.088	38.341	.000°
2	Residual	71.225	181	.394		

Total	116.488	184	

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), ATT\_Mean, BP\_Mean

c. Predictors: (Constant), ATT\_Mean, BP\_Mean, int.\_att\_bp

The R square change after inclusion of an interaction term in the model 2 appears to be .005 which is insignificant with p-value of .225. This indicates that no moderation is brought by buying power.

# IV.IV.IV. IMPACT OF BUYING POWER ON THE RELATIONSHIP OF SOCIAL CONTEXT AND CONSUMPTION OF GREEN PRODUCTS

Following few tables were generated through Spss to check the existence of any moderation effect of buying power on the relationship of Social Context and green product Consumption.

#### **Model Summary**

		D	Adjusted	D Std Error	of the	Change Stati	stics			
Model	R	K Souare	Square	R Std. Error Estimate	or the	R Square Change	E Change	df1	aro	Sig. F
		Square	Square	Estimate		Change	r Change		d12	Change
1	.792ª	.627	.623	.488		.627	153.240	2	182	.000
2	.792 <sup>b</sup>	.628	.622	.489		.000	.173	1	181	.678
a Duadia	ana (Ca	matant) C	C Magu D	D Maga						

a. Predictors: (Constant), SC\_Mean, BP\_Mean

b. Predictors: (Constant), SC\_Mean, BP\_Mean, int.\_sc\_bp

#### **ANOVA**<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	73.086	2	36.543	153.240	.000 <sup>b</sup>
1 Residual	43.402	182	.238		
Total	116.488	184			
Regression	73.128	3	24.376	101.753	.000°
2 Residual	43.360	181	.240		
Total	116.488	184			

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), SC\_Mean, BP\_Mean

c. Predictors: (Constant), SC\_Mean, BP\_Mean, int.\_sc\_bp

The R square change after inclusion of an interaction term in the model 2 appears to be .000 which is insignificant with p-value of .678. This indicates that no moderation is brought by buying power on the relationship of Social Context and green product consumption as p-value of R square change in model 2 after inclusion of interaction term is not less than .05.

# IV.IV.V MPACT OF BUYING POWER ON THE RELATIONSHIP OF AWARENESS AND CONSUMPTION OF GREEN PRODUCTS

The tables given below show the result of the regression analysis after inclusion of an interaction term to check the effect of moderator viz. Buying power on the relationship of Awareness and Consumption of Green products.

Model S	ummary	7							
			Adjusted D	Std. Erro	r Change St	tatistics			
Model	R	R Square	Adjusted R Square	of th	e R Square	F Change	df1	df2	Sig. F
			Square	Estimate	Change	r Change	un	u12	Change
1	.748ª	.560	.555	.531	.560	115.797	2	182	.000
2	.750 <sup>b</sup>	.563	.556	.530	.003	1.336	1	181	.249

a. Predictors: (Constant), BP\_Mean, AWR\_Mean

b. Predictors: (Constant), BP\_Mean, AWR\_Mean, int.\_awr\_bp

Model		Sum o Squares	of df	Mean Square	F	Sig.
	Regression	65.228	2	32.614	115.797	.000 <sup>b</sup>
1	Residual	51.260	182	.282		
	Total	116.488	184			
	Regression	65.603	3	21.868	77.786	.000 <sup>c</sup>
2	Residual	50.884	181	.281		
	Total	116.488	184			

a. Dependent Variable: GPC\_Mean

b. Predictors: (Constant), BP\_Mean, AWR\_Mean

c. Predictors: (Constant), BP\_Mean, AWR\_Mean, int.\_awr\_bp

The R square change after inclusion of an interaction term in the model 2 appears to be .003 which is insignificant with p-value of .249. This indicates that no moderation is brought by buying power on the relationship of awareness and green product consumption.

Table	3:	Correlation	of	Attitude,	Social	context,	Awareness,	Buying	Power	and	Green	Product
	С	onsumption										
Com	1.4											

Correlations						
	ATT	SC	AWR	BP	GPC	
ATT	1					
SC	004	1				
AWR	.059	.797**	1			
BP	.136*	.797** .686** .785**	.668** 727**	1		
GPC	$.128^{*}$	$.785^{**}$	.727**	.618**	1	
. ~						

\*. Correlation is significant at the 0.05 level (1-tailed).

\*\*. Correlation is significant at the 0.01 level (1-tailed).

Results show that the independent variables such as attitude (ATT), social context (SC) and awareness (AWR) are significantly and positively correlated to green product consumption (GPC), which is the dependent variable. Hence, it provides support to our initial hypothesis in which we considered that all three independent variables have a significant effect on the dependent variable. The table also shows that the independent variables namely attitude (ATT), social context (SC) and awareness (AWR) are significantly and positively correlated to buying power (BP) which is the moderator. We can also see the significant and positive correlation between the buying power (BP) and green product consumption (GPC). Hence, it provides support to the last three hypothesis in which we considered that buying power is a moderator between the variables.

### V. CONCLUSION

The present research is conducted to identify if Pakistan is ready to go green. The basic problem of this study was to identify the variables which affect the consumption of green products. This research was therefore conducted with an aim to identify the impact of awareness, social context and attitude on green product consumption. The role of buying power as a moderator was also aimed to be studied on the above-mentioned relationship, as an objective of the study.Null Hypothesis for H1 was rejected and based on the results of regression (presented in chapter 4), attitude, social context and awareness were found to have significant impact on the consumption of green products. It is in consistence with the findings of Soonthonsmai (2007) who defined green consumers as those who are aware of and research that Consumers are less willing to go for green products when the brand is not known to them (Glegg et al. 2005) and this is the basic premise of awareness that knowledge about what is green product, who produces green product and price of green product have an impact on green product consumption. Social context which is found to have significant positive impact on purchase and use of green products in our study is explored by very limited number of researchers. A researcher however, gave the similar findings through his study and suggested that social pressure may inspire consumers to buying Green Products (Zhao et al., 2014). Null hypotheses for H<sub>2</sub>, H<sub>3</sub> and H<sub>4</sub> which suggested that buying power does not significantly moderate the relationship of attitude, awareness and social context with green product consumption were all accepted as a result of the moderation analysis done on the variables after collecting primary data from the respondents. Many researchers, however, proved buying power as a significant contributor to green product consumption. Buying power moderates the relationship of environmental concern and green purchase behavior was proved by (Bloom & Sevilla, 2004). Few researchers however gave findings which are consistent with the results of this study. One of the researchers said that socio-demographic variables like income, age etc. are less likely to explain green purchase behaviors of consumers. Robertson (1989) found that an environmentally conscious consumer has less income than others. Also, in the context of this study where income of many people is higher than the expected level of education they must possess, people show less attraction towards green product consumption as they have little awareness about it.

### VI. LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study is limited in its scope as it incorporated only a part of variables which have an impact on green product consumption. An R square of .657 (section 4.6 of chapter 4) suggests that variables other than attitude, awareness and social context can be included in the model to explain total variation in green product consumption. Future researches may be conducted by including more variables. The study is conducted in Southern Punjab (Pakistan) where literacy rate is lower than compared to other regions like North Punjab etc. Similar studies can be conducted in other regions to validate or reject the results of this study, basing contextual factors as logical reasoning .A sample of 185 was taken since the population was unknown, the same study can be conducted taking any specific known target population of any specific region. Buying power was taken as a moderator variable, other demographic variables like age, gender etc. can also be checked for their moderation influence on the relationship

of various independent variables with green product consumption. In light of the results drawn from the study, the following suggestions can be made to the practitioners and policymakers. Brand managers of companies may try to create awareness about usage of green products and their benefits for probe consumption of green products. Managers may try to incorporate the reasons of higher pricing of green products in their advertising campaigns to create awareness in public and hence increase green product consumption. They also need to try creating awareness in higher income people about benefits of green products in order to increase their sales. Companies may try to increase their level of sales of green products by rewarding and awarding the customers using green products to generate social pressure on others to go green. The Government should try to create awareness and develop attitude of public about environmental concerns and necessity of recycling, reusing etc. which will in turn help people in going green.

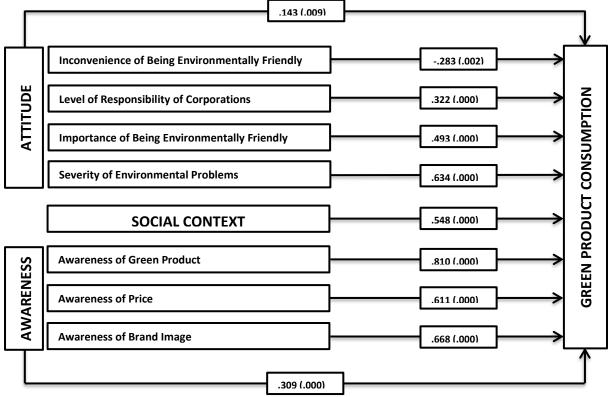


Figure 2: Regression Results of Variables & Dimensions (Beta Coefficients / Significance)

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