

# Green Consumption: The Emerging Trend among Karachi Millennials

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## Abstract

Pakistan has been perceived as a “Green and Clean” country. Karachi is Metropolitan city of Pakistan and it is assumed that ecological awareness among Consumers in Karachi is high. However, there is little empirical verification to put forward that the ecological values and attitudes are congruent with the consuming public’s actions towards green products. In addition, a good number of studies have focused on the general ecological behavior instead of specifically on consumers’ purchasing conduct towards green products. The aim of this research is to investigate the emerging trend of green consumption among the people of Karachi. The study found that, as the individuals get older they become more conscious about the green consumption. If people are more inclined towards betterment of environment, the consumption pattern bring round towards sustainable products. The study also found that; as education level and income level increase, it is negatively affecting the green purchase behavior. At the end study found that females are more conscious than males to show the behavior of ecological concern.

**Keywords:** Green Environment; Millennials; Ecological concern; green consumption; sustainable products;

## Introduction

Green consumption refers to the behavior having compatibility with sustainable environmental developments, for the sack of safeguard the environment from existing and future challenges. The emerging concept of green consumerism actually came into the prominence in late 90’s and inveigled the attention of marketers. Researches define Green consumers as, “They have pity sincere intentions and show commitment towards their green life style, and always feel their environmental friendly efforts and practices as inadequate.

According to researcher Stern “The range of behavior that changes the accessibility amount of energy or natural resources or influences the structure and dynamics of ecosystem or environment space”

Green consumption behavior has categorized into two categories, “truncation and green purchase behavior” those who adopts truncation behaviors use less private cars, use energy efficient devices and consume less natural resources) but those consumers spend no extra money for acquiring green products, however consumers having green purchase behavior not only adopt environmental friendly habits but they also spend their money to acquire green products and try to inculcate their behavior among other concerned people as well.

The study of “Green consumption behavior among millennials of Karachi” has been conducted to analyze the behavior of Karachi consumer, their preferences and the impact of environmental concerns on their buying behavior.

The behavior has assessed by combination of different demographic and psychographic variables which include:

- Age
- Gender
- Income
- Education
- Altruism
- Environmental concerns.

According to the study conducted by Robert [1] Psychographic variables has placed a more significant impact on green consumption than demographic variables, before all else they only incorporate demographic variables in their research and drawn the results

On the basis of that variables only, but later on when other psychographic variables have incorporate then the results they found were more significant than before.

In this study the first hypothesis “Age and Green ECCB has positively related” does not supported by the evidences, while the second hypothesis “Males shows more Ecological conscious behavior” has also not supported by the drawn results, and alternative hypothesis has been supported. The third hypothesis “There exist a positive relation between Income and Green purchase behavior among consumer” has also been rejected in Karachi city. However the hypothesis” There exists negative relationship between Education and Green purchase behavior among consumers” has been supported by the sufficient evidences, the results has shown a negative relation between both variables. The fifth hypothesis “There exists a positive relationship between individual’s Altruistic behavior and their Green purchase behavior” has also been supported by results, in Karachi market altruistic behavior positively shape the ECCB among consumers. The 6<sup>th</sup> hypothesis “The relationship between

Environmental Concerns among individuals and their Green purchase behavior has positively related” has supported by the generalized results, in Karachi market consumers who have high EC show high ECCB.

### Literature Review:

Green consumerism: The influence of product attributes and values on purchasing intentions:

According to different researchers [2, 3, 4, 5, 6] the purchasing intentions of consumers can greatly be enhanced by adding labels of low environmental impact on products. However [7] argues that there are some other variables like price, health and taste that are considered to be more important for the choice of organic food rather than environmental concerns. The researcher of this article [8] has seen the various product attributes that influence purchasing decision. Whether consumers tend to focus on egoistic attributes or green attributes associated with product. [9] defines the green consumers to be those who think about collective interest. In other words green consuming implies, purchasing those products that are less harmful for environment and society. According to [10], there are two attributes associated with green products. Firstly, Environmental protection, and secondly cruelty-freeness. Both of these elements positively influence product decision and its evaluation [11, 12]. On the basis of self-interest, there are two attributes associated with a product. One is price and the other one is brand equity. The price does not have always negative relationship with the purchasing intention of consumer. There may exist positive relationship when product is associated with better quality and image [13, 14]. The same case is with brand equity a well, as consumers prefer it on self-interest basis [15]. All these attributes define consumer’s egoistic approach, however there are no any empirical evidences to support pro-social basis of consumer’s purchasing intention. According to a researcher, [16, 17, 18], there are two main values which must be considered in studying green consumerism, i.e. egoistic and altruistic. Altruistic in other sense refers to a pro-social basis of purchasing. People, who seek individual benefits, do cost benefit analysis. If the individual benefits are greater than the cost associated with a product, they will purchase the product. While people having strong altruistic values, compromise this behavior for the sake of society and eco-system [18]. In this research conducted by [19] the results indicates that altruistic behavior is shown by individuals during purchasing when product fulfills the social interest *in addition to* individual interests. Also, the results show that the prices are not the ultimate factor to purchase green products but also it’s the green nature of the product that attracts the consumer to purchase it. Green consumerism is highly based on the moral values [20] and the results of research also suggest the same. [21] Said that we cannot distinguish green and regular consumers on the basis of their values. However the researcher [19], argues that values are the strong predictor of purchase intentions whereas they can influence ones purchase behavior towards green products

According to a researcher [22], the consumers who prefer environmental friendly behavior is referred to as ecologically conscious behavior, eco-friendly behavior etc. and consumers showing such type of behavior are named as green consumers, socially conscious consumers etc. The increasing trend of green product purchasing has been studied by various researchers [23] they all suggest that the consumers avoid and purchase products on the basis of their impact on natural environment. It is also found that consumers are even willing to pay more if they found a product to be eco-friendly [24]. But all that require is the eco-labeling on the consumer products. If marketers have provided the eco labels on products, it increases their profitability, as consumers highly respect eco labels [25].

According to a research, in Western countries, consumers highly follow the direction of federal, state and local government, whereas in poorer countries due to lack of institutional control, consumers have to themselves take care of their environment to protect it [26]. [27] Found income, education, economical reinforcements and domestic conditions to be factors that can promote eco-friendly behavior among individuals. Willingness to act is also another major component of green consumption; it spreads the green consumption among individuals [28, 29]. However these attributed do strongly influence the purchases decisions. According to [30], a positive relationship lies between environmental concerns and environmentally responsible intention to act. In the same manner some consumers may be willing to act but are not willing to do personal sacrifices [31]. Consumer attitude of green behavior affects their green purchase behavior with a mediator role of purchase intention. However, one study suggests that the link to be weak [32]. There is emotional bound found between the consumers and the environment also known as ‘ecological effect’. [33] Found a positive relationship between the ecological effect and consumer’s intention to buy eco-friendly products in China. Whereas in USA, consumers prefer eco-friendly products but they buy these products in fewer occasions [34].

Education can also play a role in purchasing decision of green products. Several researches [35, 36, 37; 38, 39; 40, 41, 42) show a hypothetical relationship between education and green purchase behavior. [43, 29] found a weak relationship between education and green purchase behavior. Whereas, [44] found no relationships between them. Interestingly another researcher [45], found a negative relationship of education and purchasing behavior of green products. The study conducted by [46] in this paper concludes that consumers do want to show environmental friendly purchase behavior but for their behavioral transformation, they need information from the marketers about availability, reusability and environmental impact of product. Whereas what important point

he found is that the highest education among individuals does not guarantee the purchasing decision of green products if we compare it with quality and price.

### **Green Millennial's Profile:**

[47] have defined the two categories of consumer behavior, the first one is truncation behavior which is more related to consume less environmental products, while the second category consist of green purchase behavior in which consumer not only save the environmental products (electricity, water and so on) but they also spend on green products. On the basis of environmental concerns, [48] divided green consumers in to five categories. True Blue Green: these consumers have a strong desire to associate themselves with environmental values and called themselves a green consumer. Green Back Greens: these consumers are not much interested like true blue consumers but they possess somehow interest in purchasing green products, Sprouts: they only possess concerns about the environment, but when it comes to purchase they do not pay extra penny for green products. Grousers: These consumers have very few knowledge and awareness about environment, these type of consumers believe that companies claim of producing green products is just their strategy to boost their sales. While Basic Browns: are those type of consumer who have no concern about environment because they remain busy in solving their routine problems. According to [49] consumers increasing concerns about the environment has compelled the companies to produce and shift towards the green products in order to keep their foots remain in market, while [50] also consider that if companies do not take this debate seriously then they will surely fail, satisfying their consumers and shaping the principles, and this ultimately increase their risk which will not match with the sustainability standards. There are few researchers who criticize that company's claim that they are producing environment friendly products are just their managerial strategies to make customer fool and boost up their sales [51]. As far as consumers is concerned, there are many factors which influence upon the green consumers, these factors can be divide into three categories: external, situational and internal factors. External factors include media, family, culture and education but according to another researcher [51], most of the time external factors misguides or misinforms them about the implication of eco-friendly products. The internal factors include knowledge, awareness, and attitudes while the situational factors are: legislation and economic rewards [52]. [53] Found that (EFBB) environment friendly buying behavior reflects that consumers want more and careful assessment of product at the time of purchasing green product. Researchers [54] found that non green consumers are more tilted towards the product type and price than green consumers. While for green consumers prices and Personal income did not appear to be of importance for green preferences in any of the cases.

### **Green Marketing:**

Green marketing is not an old concept that begins to flourish from late 1980s but up till now there are many researchers who define and contribute new findings about green marketing in their own ways. [55] defined; green marketing is a set of activities that made to create and facilitate any trade to satisfy human needs or wants with minimal impact on the natural environment. A study conducted by [56] define that the high number of consumers lack knowledge related to green product because of less availability of such organization that contribute and produce environmental friendly products and packaging. Extension to their study, the researcher [57] found that Consumer's knowledge about green product is highly satisfactory because of the depletion of Ozone, Global Warming and changes in atmosphere, but at the same time consumers are not aware about the standards and initiative that taken by governmental and non-governmental institutions.

So up till now it is clear that people are now having more concerns on environmental friendly product than before but what factors influence on their buying behavior. [57] Findings suggested that consumers have shown positive attitude towards green product availability and prices during purchases and [58] define many other factors influencing on buying behavior: desire for security, self-monitoring, green culture & trends, influence of media, Green product price, Green product design, product effectiveness & inconvenience of green consumption. While another researcher [59] found three other factors that impact positively on purchasing behaviors: perception of the seriousness of environmental problems, perception of environmental responsibility and concern for self-image in environmental behavior.

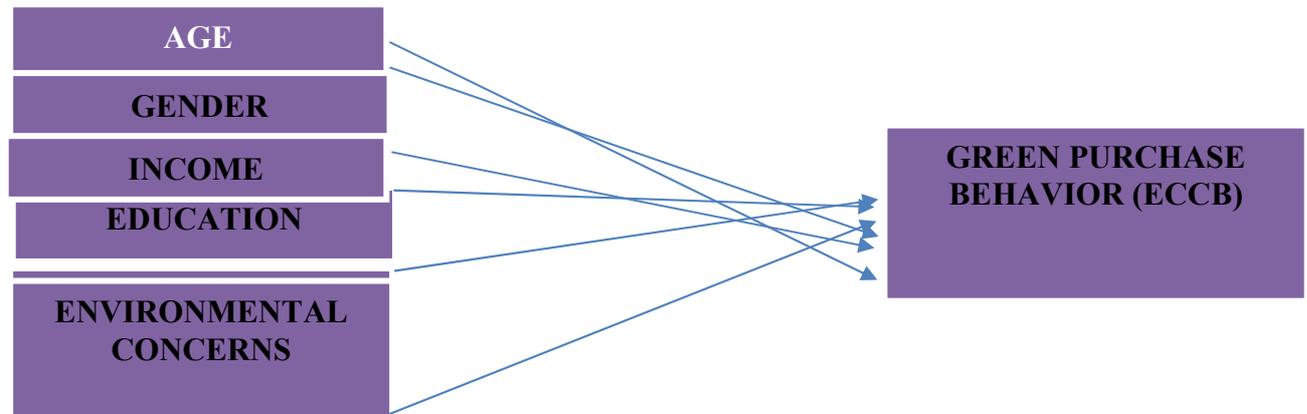
[57] Suggested that the marketing communication regarding green practices need to focus more on theme and message *and use emotions and persuasion appeals*. According to [60] majority of messages in the green advertisements were high on emotional content, had feel-good themes, and used soft and subliminal messages. While [61] study suggests that both private and public policymakers work to encourage and promote behavior that is environment friendly by using multiple media.

### **Research Questions:**

- Q: 1: What role does age play in Millennial's green purchase behavior?
- Q: 2: To see the impact of prices on consumer's green purchasing behavior?
- Q: 3: Do Karachi millennials show price conscious behavior while purchasing green products?

Q: 4: Do altruistic behavior influences positively on green consumption among millennials?  
 Q: 5: Is it necessary for the consumers to be educated enough to buy green products?

*Research Model:*



**RESEARCH HYPOTHESIS:**

- HO1:** There exists a positive relationship between Age and Green purchase behavior among consumers.
- Ha1:** There is a positive relationship between Age and Green purchase behavior among consumers.
- HO2:** Males show more ecologically conscious behavior.
- Ha2:** Males do not show more ecologically conscious behavior.
- HO3:** There exists positive relationship between Income and Green purchase behavior among consumers.
- Ha3:** There is not positive relationship between Income and Green purchase behavior among consumers.
- HO4:** There exists negative relationship between Education and Green purchase behavior among consumers.
- Ha4:** There exist a positive relationship between Education and green purchase behavior among consumers.
- HO5:** There exists positive relationship between Environmental Concerns among individuals and their Green purchase behavior.
- Ha5:** There is not positive relationship between Environmental Concerns among individuals and their Green purchase behavior.
- HO6:** There exists a positive relationship between individual’s Altruistic behavior and their Green purchase behavior.
- Ha6:** There is not a positive relationship between individual’s Altruistic behaviour and their Green purchase behavior.

**Data:**

The main focus of this study is to see the impact of demographic and psychographic variables over the Green Consumptions behavior or Ecologically Conscious Consumer Behavior (ECCB) of Karachi Millennials. The dependent Variable in the model is Green Consumption behavior or ECCB and the independent variables; age, gender, income, education from demographics and; altruism and environmental concerns from psychographic variables are included in the model.

The whole research is done on primary data collected from Karachi District in 2015. The sample of 211 residents of Karachi district is selected for research. With the help of this research we will be able to check the impact of above mentioned variables on the green consumption of Karachi millennials.

The model comprises of six independent and one independent variables and simple regression is applied on it. The regression model is as follows:

$$Y (\text{eccb}) = \beta_0 + \beta_1 (\text{age}) + \beta_2 (\text{gen}) + \beta_3 (\text{inc}) - \beta_4 (\text{edu}) + \beta_5 (\text{alt}) + \beta_6 (\text{ecn}) + \mu_{1x}$$

**Table:1 Variables Definition:**

Labels	Variables	Measure	Type
Eccb	Ecologically conscious consumer behavior	Unitized (1-5)	Dependent
Age	Age	Years	Independent
Gen	Gender	Unitized (1-2)	Independent
Inc	Income	Pakistani Rupees	Independent
Edu	Education	Levels (1-5)	Independent
Alt	Altruism	Unitized (1-5)	Independent
Ecn	Environmental concerns	Unitized (1-5)	Independent

**Table: 2: Descriptive Statistics**

Variables	Sample size	Average	SD	Min	Max
EC	211	2.758	0.4612	2	4
Age	211	2.255	1.051	1	6
Gen	211	1.687	0.644	1	4
Inc	211	3.175	1.844	1	7
Edu	211	2.218	1.051	1	5
Alt	211	2.549	0.633	2	4
Ecn	211	2.047	0.212	2	3

While applying regression and interpreting our model the Gauss Markov assumptions must be satisfied. The assumptions are as follows:

**Assumption: 1**

For linear Parameters, the regression should be linear in parameters.

**Assumption: 2**

Sampling should be random and unbiased. In this case the sample is also conducted without biasness.

**Assumption: 3**

For any values of independent variable, the expected value of  $\mu$  should be equal to zero.

**Assumption: 4**

There should be no perfect collinearity among variables. The variables should not be correlated with each other. It should be satisfied while choosing variables for the model. This non collinearity can be seen in the following Table: 3 of Correlation.

**Assumption: 5**

There should be homoscedasticity in the model or there should be same variance for all independent variables in the model.

The above assumptions are proved to be satisfied in this research model. All Marcov assumptions have been satisfied, showing unbiased results and significant estimators.

**Methodology:**

The model used for research is Simple linear Regression model. The OLS technique is applied to estimate the BLUE estimators. In first step simple regression was applied to estimate the results. In second step, various tests were applied to remove the insignificance of the model. In this regards, white test was applied, and  $R^2$  value was multiplied by N (i.e. 211), this was compared with the critical value of Chi square  $\lambda^2$  (with  $df = n-k = 204$ ,  $p = 0.05$ ). The critical value proved to be lesser i.e.  $NR^2 > \lambda^2$ . The results proved the transparency of data with heteroscedasticity. After that multicollinearity check was done, the results showed no such presence of perfect multicollinearity in the model which was doubt to be present in the data as the research is qualitative. Lastly correlation was checked but it was not found as the Durbin Watson test was significant with the value of 2.19. In the last step results are interpreted after all such verifications in the model.

The model still shows some insignificance after various test applied which proves that there are some other factors involved, due to which the results are insignificant.

	AGE	INCOME	EDUCATION	GENDER	ALTRUISM	ECN
AGE	1.00	-	-	-	-	-
INCOME	0.138	1.00	-	-	-	-
EDUCATION	0.371	-0.0026	1.00	-	-	-
GENDER	0.055	0.062	-0.032	1.00	-	-
ALTRUISM	0.238	-0.107	0.027	-0.07	1.00	-
ECN	-0.118	-0.045	0.017	-0.09	-0.052	1.00

### Simple Regression:

$$Y (\text{eccb}) = 2.5114 + 0.04 (\text{age}) - 0.121(\text{gen}) - 0.0335(\text{inc}) - 0.01856(\text{edu}) + 0.163 (\text{alt}) + 0.044(\text{ecn}) + \mu_{1x}$$

### Results

While concluding the results Simple Regression must be analyzed. The regression results shows that three of the demographic explanatory variables to be negatively related with dependent variable, while the remaining three i.e. one demographic (Age), and two psychographic variables (Altruism and Environmental concerns) to be positively related to the dependent variable i.e. ECCB (Ecologically Conscious Consumer Behavior). The overall model shows significance with  $R^2 > 0.5$  and F stats  $> 4$ , whereas the individual significance level of each explanatory variable is different. The results shows significance ( $p < 0.05$ ) in three explanatory variables i.e. Gender, Income and Education while three variables i.e. Age, Education and Environmental concerns, in the model are insignificant ( $p > 0.05$ ). The model was applied with different test of multicollinearity, autocorrelation, and heteroscedasticity but the results showed minute differences in significance. The problem of larger p values related to insignificant variables can be associated with 'some other' problem in the model. However we can say that the model fulfilled the OLS assumptions. The results related to individual hypothesis are as follows:

**HO: 1** *There exists a positive relationship between Age and Green purchase behavior among consumers.*

The relationship of age with Green Consumption behavior i.e. ECCB is assumed to be positive but the results shows a negative relationship of age and ECCB. The variable, Age shows the co-efficient of 0.040061 which mean that every single year increases the green consumption behavior among individuals with 0.04 units. Hence the data provides us sufficient evidences to support  $H_a$ .

**HO2:** *Males show more ecologically conscious behavior.*

The relationship of gender with ECCB was assumed to be positive. It means that male is assumed to be doing more green consumption than females. However in the Karachi, the opposite relationship is seen. The coefficients are showing negative relationship of male with ECCB. Thus the data provides us sufficient evidences to support alternative hypothesis  $H_a$ .

**HO3:** *There exists positive relationship between Income and Green purchase behavior among consumers.*

The hypothesis suggests that income and ECCB are both positively related to each other. The same is assumed by various researchers but in Karachi the results are quiet opposite. The coefficient of explanatory variable i.e. Income shows a negative relationship with value of -0.0335, which means that every unit increase in income is decreasing the ECCB by 0.0335 units among individuals. Hence results provide sufficient evidences to support  $H_a$ .

**HO4:** *There exists negative relationship between Education and Green purchase behavior among consumers.*

In case of education, the researchers previously found no relation or even negative relationship of it with ECCB. In Karachi however the results are also supporting the point. The results show a negative relationship of education with the value of coefficients i.e. -0.0185. Hence data provides us sufficient evidences to support the Null Hypothesis  $H_0$ .

**HO5:** *There exists a positive relationship between individual's Altruistic behavior and their Green purchase behavior.*

The individual's altruistic behavior is assumed to be positively related with ECCB. The results also show a positive relationship between them. The coefficients are estimated to be positively related with the value of 0.1637. Hence, results support the Null Hypothesis  $H_0$ .

**HO6:** *There exists positive relationship between Environmental Concerns among individuals and their Green purchase behavior.*

The relationship of Environmental Concerns and ECCB is described to be positive by various researchers. In Karachi the results also prove the same relationship with the positive co-efficient of 0.04468. Hence results support our Null Hypothesis.

### Conclusion

The increasing trend of Green consumption among individuals has led various researchers to analyze such variables that influence their green behavior. The researchers find out some key factors that mostly influence the behavior of Green Consumption among individuals. The variables which were analyzed were usually the demographic ones, however when the same research on ECCB was done by involving psychographic variables, the result estimations were more significant than before.

In this research, the same study is conducted on Karachi Millennials and it is concluded that psychographic variables i.e. Altruism and Environmental Concerns are positively related to ECCB while demographic variables results proved that age is positively related to ECCB while Income, and Education shows a negative relation. Other results related to Gender shows that Males are not more Ecologically Conscious in Karachi as various researches described.

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